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DAILY DIGEST

Prepared in the Press Service, Office of Information, U. S. Department of Agriculture to present items of interest to agriculture and to agricultural workers. Views and opinions in these items are not necessarily approved by the Department.

Vol. LXXIV, No. 21

Section 1

August 2, 1939

WEATHER, CROP BULLETIN

In the Northeastern States, where severe drought has prevailed, says the Weather Bureau, there were intermittent showers on several days of the week. However, they were of a decidedly local character and varied greatly in amount, some localities having heavy rains, while in others the falls were insufficient to be of material benefit. Some shallow-rooted crops have been lost, but fall tree fruits were not seriously affected. Water levels are very low in the South and the fire hazard in the hurricane slash (in New England) has been considerably lessened. In New York State the fire hazard has been greatly reduced, but water shortage continued in many places; truck crops have been heavily damaged. In general, there is still need for good soaking rains in many places from New Jersey and Pennsylvania northeastward. In the western drought area there was considerable relief during the week in some places, but, on the whole, the situation has not changed materially.

TENANT LOANS ALLOTTED

The Farm Security Administration announced yesterday the distribution among states and territories of the \$38,000,000 available for the 1939-40 program of loans to tenants for the purchase of farms under the Bankhead-Jones farm tenant act. The distribution is based upon farm population and the prevalence of tenancy in the various states and territories. Congress appropriated \$40,000,000 for operation of the tenant purchase program this fiscal year, of which five percent was authorized for administration. The \$38,000,000 available for loans is expected to finance about 7,068 farm tenants, sharecroppers or farm laborers in purchasing farms of their own during the fiscal year. Loans will be made in about 1,300 counties. During the first two years of operation of the law, a total of \$35,000,000 was appropriated. A total of 6,179 loans, aggregating \$33,331,634, were made.

HATCHERIES INCREASE

An increase during recent years of approximately 50 percent in United States baby chick hatchery capacities is shown in a report by the Poultry Section of the Division of Marketing and Marketing Agreements, made today at the World's Poultry Congress. The report is a preliminary account of a survey being conducted by the Poultry Section in cooperation with the Agricultural Marketing Service. Incubators in more than 11,500 commercial hatcheries, during the 12 months ended July 31, 1938, had a combined capacity of about 407 million eggs. This is fully 130 million more than in the corresponding period in 1934.

Senate Passed S. 2864, works financing bill, by a vote
July 31 of 52 to 28. Barkley substitute for Taft amendment,
decreasing item for Export-Import Bank to \$75,000,000,
was agreed to by a vote of 44 to 35. As passed the Senate, the bill
contains the following items: Rural Electrification Administration,
\$500,000,000; Farm Security Administration, \$600,000,000; Bureau of
Reclamation, \$90,000,000; Export-Import Bank, \$75,000,000; makes
Federal Farm Mortgage Corporation funds available for refinancing
farm mortgages.

Committee on Agriculture and Forestry reported the following:
with amendments, S. 1710, to provide for cancellation of certain notes
acquired by the Farm Credit Administration as a result of the activi-
ties of the Federal Farm Board (S. Rept. 1039); without amendment,
H. R. 5764, to provide for establishment of a cemetery in the Crab
Orchard Creek Dam Project, Ill. (Soil Conservation Service) (S. Rept.
1040); with amendments, S. J. Res. 66, making provisions for refund
of processing tax on hogs marketed for slaughter by raisers and pro-
ducers who bore all or part of the burden of such tax (S. Rept. 1041).

Committee on Library reported without amendment H. R. 6585, pre-
scribing the procedure for disposition of certain records of the U.S.
Government.

Both Houses received from the President a report of the National
Resources Committee, "Regional Planning, Part VIII - the Report of the
Northern Lakes States Regional Committee" (H. Doc. 458).

House Passed the following:
July 31 H. R. 6832, to provide for protection of witnesses
appearing before any department or other agency of the
U. S. Government.

H. R. 7233, to amend the act to provide for disposition, control,
and use of surplus real property acquired by Federal agencies.

H. R. 6693, to amend the provisions of law relating to the use
of private vehicles for official travel in order to effect economy
and better administration.

H. R. 4088, to amend the Commodity Exchange Act to extend its
provisions to fats and oils, cottonseed, cottonseed meal, and peanuts.

H. R. 6372, relating to the development of farm units on public
lands under Federal reclamation projects with Farm Security Administra-
tion funds.

H. R. 2900, to amend the Civilian Conservation Corps Act so as
to make it permanent, place certain employees under civil service, in-
crease salary of director, and authorize an official seal.

H. R. 6884, to encourage travel in the United States by tourists,
etc.

H. R. 7096, to amend the Philippine Islands Independence Act with
regard to trade and economic relations between U. S. and said Islands.

H. R. 2418, to extend provisions of Forest Exchange Act to certain lands so they may become parts of Whitman, Malheur, or Umatilla National Forests; H. R. 5404, to extend provisions of Forest Exchange Act to certain lands so they may become part of Ochoco National Forest; H. R. 884, to add certain lands to Siuslaw National Forest.

H. R. 6972, to extend the Federal Crop Insurance Act to cotton, was passed over after brief discussion.

Committee on Banking and Currency reported with amendment H. R. 7120, to provide for the construction and financing of self-liquidating projects (H. Rept. 1421).

(Prepared by the Office of Budget and Finance.)

Vitamin C in Orange Juice The department, Queries and Minor Notes, in the Journal of the American Medical Association (July 22) answering an inquiry as to how long orange juice retains vitamin C, says that "because vitamin C is readily destroyed by oxidation, it was commonly thought for several years that it would be good practice to consume citrus juices as soon as possible after their preparation. Recently, however, Munsell and her collaborators (McElroy, Olive E.; Munsell, Hazel E., and Stienbarger, Mable C.: Ascorbic Acid Content of Tomatoes as Affected by Home Canning and Subsequent Storage, and of Tomato Juice and Fresh Orange Juice as Affected by Refrigeration, (Journal Home Economics 31:325 May, 1939) have repeated observations on orange juice, using an improved technic, and have found no appreciable loss of ascorbic acid (vitamin C) in orange juice stored for twenty-four hours in loosely covered glass jars in a refrigerator at temperatures of approximately 40 to 45 F.; i.e., safe refrigeration temperatures. It is reported that there was no difference in the results when the juice was strained through cheesecloth or through a wire sieve. Evidence from experiments performed at the Connecticut Experiment Station, at the request of the Council on Foods also shows that fresh orange juice retains as much as 97.6 percent of its vitamin C activity after storage for twenty-four hours in a loosely stoppered flask in a refrigerator..."

Squab Chicken Preparation Four workers of the Michigan Experiment Station, in Poultry Tribune (August) report a new way to prepare squab chickens (1 to 1.25 pounds live weight). Lack of demand for this size of bird, they say, is due to: "(1) the customary method of preparation by splitting in halves provides too small a portion of chicken; (2) boning is so expensive that it limits the product to high-priced dining rooms; (3) the chicken flavor is not as pronounced as in older birds. These objections have been overcome by preparing and serving squab chickens whole....Despite the higher rate of mortality of squab chickens, the investment per casualty in the heavier classes of poultry more than outweighs that of a large number of less expensive squab chickens. An entire squab chicken is required for each

serving. Leghorns, 1 to 1.25 pounds live weight, are killed, dressed, waxed, and drawn in the usual manner. A highly seasoned stuffing containing chicken fat is used to accentuate the flavor. The birds are steamed for 10 minutes and browned in an oven at 450° F. for about 15 minutes. When a waxing outfit is not available and the birds are to be cooked without too much delay, skinning is much faster. Squab chickens that had been precooked and stored hard-frozen nearly a year were found to be satisfactory. Trials in a cafeteria have shown that squab chicken was preferred to other forms of chicken, and, at banquets, it has been especially well received."

Alaskan Forests

Alaskan forests represent a tremendous national asset, although it is doubtful if they will come on the market to any great extent for a number of years, F. A. Silcox, Chief of the Forest Service, says after a 5000-mile tour of the territory's timberlands. During his inspection of some of the 35,000 square miles of forest in the Tongass and Chugach National Forests, and in his trip as far inland as Fairbanks, the Chief Forester traveled by boat, automobile, railroad and airplane. "Timber resources in southeastern Alaska are sufficient to provide a sustained yield of timber for seven pulp mills -- each capable of producing 500 tons of pulp per day and supporting a community of about 5000 people," he said. "Ample water power for these developments is available. But because of pulpwood stands in the Pacific Northwest, huge investments recently made for the production of pulp in the South, and international trade conditions, I doubt if Alaska pulpwood will show itself on the market for 20 years or more..."

Poultry and Eggs

Between June 15 and July 15 prices received by farmers for eggs began their usual seasonal rise, reports the Bureau of Agricultural Economics. The cent-and-a-half increase was about the same as the increase between these two dates for both last year and the 1928-37 average. Egg prices on July 15, however, were about $3\frac{1}{2}$ cents below last year and more than 2 cents below the 10-year average for that date. The feed-egg ratio (based on Chicago prices) continues less favorable to farmers than last year but more favorable than the 1928-37 average. Prices received by farmers for chickens on July 15 were 0.3 cents per pound higher than on June 15. Last year prices declined 0.7 cents between these two dates. On July 15 chicken prices were over 1 cent below last year and about 2 cents below the 1928-37 average. The number of young chickens per farm flock on hand July 1 was 2.6 percent larger than a year earlier.

One-Piece Hammers

"Now we have hammers and hatchets with unbreakable handles which never get loose," says Country Home Magazine (August). "The head and handle of this new-type tool is one solid piece of rust-resistant steel, electrically forged and hardened, and is equipped with a non-slip leather grip."

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Vol. LXXIV, No. 22

Section 1

August 3, 1939

WALLACE ON CREDIT CURB

In a 45-minute press conference yesterday, Secretary Wallace denounced as "unthinking" the action of the House Appropriations Committee in striking from the final deficiency bill yesterday \$119,000,000 to restore the impaired capital of the Commodity Credit Corporation, which operates in various ways to maintain farm prices. "I do not think the committee knew what it did when it struck out this \$119,000,000," he said, "and I am speaking out now so that the House will know what is involved. If the committee's action is approved, in effect it will stop commodity loans on corn, wheat, cotton, dairy products, rye and wool. Without funds for corn loans the price at Iowa elevators will drop to 25 cents a bushel at a conservative estimate. With a loan the farmers who cooperate can get 55 cents, or enough more of purchasing power to have a large effect on the whole national economy." (New York Times.)

HATCH BILL SIGNED

President Roosevelt signed into law yesterday the Hatch bill regulating political activity of most federal employees, but told Congress emphatically the American people would not stand for its enforcement as a "gag act." Mr. Roosevelt recommended that Congress study next session extension of the measure to cover state and local government employees "who participate in federal elections." The study should be undertaken, he said, with a view to broadening the act before the 1940 election. "For many years," the message said, "there has been an exception to the civil service regulation whereby employees permanently residing in the District of Columbia or in municipalities adjacent thereto may become candidates for or hold municipal office in their municipalities. This and a few similar exceptions should, I believe, be maintained." (A.P.)

FOREST FIRE INSURANCE

What is called "unquestionably a sound basis" for a Nation-wide business in insuring standing trees against forest fires is set forth in a report on "Forest Fire Insurance in the Northeastern States" (T.B. 651, 10 cents) prepared by H. B. Shepard for the Division of Forest Economics of the Forest Service. At the present time, forest fire insurance is not commercially obtainable in this country but is widely used in several foreign countries. The "sound basis" described is an integration of forest-insurance underwriting in the Northeastern States with similar fire insurance in the previously surveyed Pacific Coast lumber states, says the report, indicating the practicability of a Nation-wide expansion from this combination.

Rural Co-op Farmers' mutual telephone companies own a total
Telephones of 678,000 miles of wire, according to information re-
cently compiled by the Bureau of the Census for the
Farm Credit Administration. There are now approximately 2,000 farmers'
mutual telephone companies with switchboards operating in the United
States and over 30,000 mutual companies without switchboards owning
one or more telephone lines. Cooperative telephone companies are,
of course, financed by members. The most common method of raising
capital is through the assessment of members or by the sale of stock
to the prospective patrons of the company. This count does not in-
clude mutual companies with less than half the voting control in the
hands of farmers or companies with less than half the telephones on
farms. (News for Farmer Cooperatives, July.)

Hammer Mill "By slowing the speed of a hammer mill, Soil Con-
Cleans Seed servation Service workers have a convenient tool for
cleaning the seeds of many of the trees, shrubs, and
vines used in conservation programs," says Implement & Tractor (July
22). "With it, Hugh A. Steavenson, manager of the Soil Conservation
Service nursery at Elsberry, Missouri, has cleaned dry-shelled fruits
such as locust, catalpa, and redbud, and fleshy fruits such as plums,
grapes, hawthorns, apples, and berries. To prevent injury to the
seed, the hammer mill is operated slowly, often at only 400 revolu-
tions a minute. With dry fruits the mill cracks the shells, but not
the seed. The seed can then be cleaned with a fanning mill. With
the fleshy fruits, the hammer mill smashes the pulp and a stream of
water floats it away, leaving the seed on the screens of the mill...
The fermentation process often injures the seeds so that they do not
germinate freely. The hammer mill method of cleaning is not only
cheaper, but with intelligent management of the mill to avoid injury
to the seeds, it results in better-quality seed with a higher rate
of germination."

Timber President Roosevelt has submitted to Congress a
Report recommendation of the National Resources Committee
for a long-range program to rehabilitate residents of
the cutover timber areas of Northern Michigan, Wisconsin and Minne-
sota. The committee suggested long-time capital loans to settlers
on land suited for agriculture, relocation of other residents, elimi-
nation of "uneconomic" units of government, development of co-opera-
tive marketing and a large scale public works program for forest
restoration. The recommendations, covering 57,000,000 acres in eighty-
six counties, were based on studies begun more than a year ago through
regional committees. (A.P.)

Senate
August 1

Passed the following:

S. 2270, to authorize the Secretary of Agriculture to purchase refuge lands in S. C. for perpetuation of the eastern wild turkey and to provide pure-blood stock for restocking.

H. J. Res. 188, authorizing the Secretary of Agriculture to designate the Director of Finance to sign requisitions on the Treasury Department for disbursing funds (this joint resolution will now be sent to the President).

S. 2212, authorizing annual appropriations of \$5,000,000 for development of marketing and marketing services for farm commodities.

H. R. 5625, Coffee Federal seed bill.

H. R. 6634, amending flood-control acts and authorizing certain preliminary examinations and surveys for flood control.

H. R. 4638, authorizing the Secretary of Agriculture to prepare plans for eradication and control of the pink bollworm (this bill will now be sent to the President).

H. R. 6614, to amend the Government Losses in Shipment Act.

H. R. 6538, 6539, 6540, and 6541, to amend the Agricultural Adjustment Act of 1938 with regard to tobacco marketing quotas (these bills will now be sent to the President).

S. Res. 160, directing the Tariff Commission to investigate domestic production and importation of wood pulp or pulpwood.

H. R. 2990, to amend the Civilian Conservation Corps Act so as to extend its life until July 1, 1943 and to authorize the designation of an official seal (this bill will now be sent to the President).

H. R. 2752, to include within Kaniksu National Forest certain lands owned or in course of acquisition by the U. S.; H. R. 5747, to authorize the addition of certain lands to Wenatchee National Forest.

S. J. Res. 58, providing for an investigation of the feasibility and desirability of fixing railroad rates on basis of zones.

S. 1802, authorizing construction of water conservation and utilization projects in the Great Plains and arid and semiarid areas.

H. J. Res. 340, providing that the farmers' market in blocks 354 and 355 of D. C. shall not be used for other purposes (this joint resolution will now be sent to the President).

H. R. 6266, providing for the incorporation of certain persons as Group Hospitalization, Inc. (this bill will now be sent to the President).

H. R. 6405, authorizing the sale of certain real estate in D. C. no longer required for public purposes (this bill will now be sent to the President).

S. 1710, to provide for cancelation of certain notes acquired by the Farm Credit Administration as a result of activities of the Federal Farm Board.

H. R. 5764, to provide for establishment of a cemetery in Crab Orchard Creek Dam Project, Ill. (S.C.S.) (this bill will now be sent to the President).

H. R. 6585, prescribing procedure for disposition of certain records of the U. S. (this bill will now be sent to the President).

S. J. Res. 66, making provisions for refund of processing tax on hogs marketed for slaughter by producers who bore the burden of such tax.

The following bills were passed over after brief discussion:

S. 2585, to reimburse cotton cooperative associations for losses occasioned by Federal Farm Board's stabilization operations.

H. R. 5681, to authorize the Federal Surplus Commodities Corporation to purchase and distribute fish products.

Agreed to House amendment S. 2410, authorizing development of farm units on Federal reclamation projects with Farm Security Administration funds. The amendment limited operations under this bill to the fiscal year 1940. This bill will now be sent to the President.

Conference report on H. R. 4998, to amend the Packers and Stockyards Act, was submitted to both Houses and agreed to by the Senate. As reported from conference, the bill contains only the House provision which requires rates prescribed to be observed as both maximum and minimum rates.

The vote by which the Senate passed S. 915, administrative-law bill, was reconsidered, and the bill was restored to the calendar.

(Prepared by the Office of Budget and Finance.)

Plywood for Containers "The increased use of wood containers of plywood and veneer is a new and definite trend in the wooden shipping container industry," says Barrel and Box and Packages (July). "...Barrels and drums of plywood are now being used to pack potatoes and apples in the fruit and vegetable field. They are light in weight and long-lasting. Since they are constructed in a straight line from top to bottom and thus without the ordinary bilge, they are very easily packed for shipment or storage. The significance of the introduction of plywood as a barrel material is that it opens a wide field for the utilization of veneer and plywood which is not suitable for other purposes, and thus containers of this material may be made cheaply. Basket plants are large users of veneer and plywood and through its use they are able to meet price competition from fibre containers. Since this package field is large and important, the use of plywood and veneer offers a stout defense of this market. Among the new container constructions that seem to be imminent in the wood container field is the plywood unit container for rail or truck delivery and for furniture transport, the straight-sided barrel for both fruits and bulk products and the plywood box capable of being taken down and set up quickly and which may be shipped flat when empty."

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Section 1

August 4, 1939

ADD LARD TO STAMP PLAN

Addition of lard and vegetable shortening, made chiefly from cottonseed oil, to the list of surplus food-stuffs which can be obtained by relief clients in several cities under the Federal Surplus Commodity Corporation's experimental food stamp plan for surplus distribution was announced yesterday by Secretary Wallace. The addition will become effective some time this month. Department of Agriculture officials, in recommending the new additions, said supplies were abundant and prices relatively low. Other pork products, it was indicated, may be added late this fall. (New York Times.)

W. A. SHERMAN DECEASED

Wells A. Sherman, pioneer in fruit and vegetable work of the Department of Agriculture, who died day before yesterday, had retired as head of the division of fruits and vegetables of the Bureau of Agricultural Economics, on July 31, 1938, after nearly 43 years of service. He entered the Department service in 1895. In 1920 the division of fruits and vegetables was established under his direction. Mr. Sherman was in charge of work which led to the establishment of the market news service in 1915. Outstanding among his activities in the marketing field was his work in organizing the nationwide shipping point inspection service for fruits and vegetables.

GRAIN MARKETS

Refusal of the House of Representatives to appropriate additional funds for the Commodity Credit Corporation dominated the domestic grain markets yesterday, according to a Chicago report to the New York Times. Predictions by Secretary of Agriculture Wallace that such action would be followed by a decline in commodity prices were made good in a hurry, as a rush of selling developed in wheat at the start and continued until at the extreme the September delivery showed a loss of 1 3/4 cents a bushel from Wednesday's finish.

EXPRESS TOLL ROAD BILL

Representative Pat Boland of Pennsylvania has introduced a bill for the construction of express, high-speed highways, to traverse the entire United States. A subcommittee of the Banking and Currency Committee may hold hearings on the proposal during the recess of Congress to clear the way for action early in the next session. It was intimated the President would make an important announcement regarding the federal highways program in a few days. (Washington Star.)

Credit for Poultry "Cooperative credit institutions operating under the supervision of the Farm Credit Administration, in extending credit to the farmer, take poultry raising into consideration as a source of farm income," says W. J. Maddox and S. W. Sanders of the Farm Credit Administration in the U. S. Egg and Poultry Magazine (August). "The experience of the farmer and his family in successful poultry raising enters into consideration of the farmer's ability to meet his obligations. The Federal land banks recognize poultry raising as an agricultural enterprise for which loans may be made. Poultry growers are eligible to membership in local production credit associations. This makes it possible for the farmer to obtain loans for the purpose of carrying the poultry flock, and it can be arranged for the loans to be repaid as the products are marketed. Farmers' poultry marketing cooperatives, cooperative egg auctions, and cooperative purchasing associations are eligible for loans from the banks for cooperatives. Poultry products are on the list of commodities which are eligible as security for commodity loans from the banks for cooperatives, which at present bear interest at two percent a year. By extending reasonable credit to poultry raisers, cooperative credit institutions operating under the supervision of the Farm Credit Administration have helped many farmers to maintain more regular marketing of their poultry instead of dumping a great deal of it on the market at once to obtain needed operating funds..."

Costs of Distribution Business Week (July 29) in reviewing the Twentieth Century Fund's latest book, Does Distribution Cost Too Much? says in part: "Authors Paul W. Stewart, marketing expert, and J. Frederic Dewhurst, economist for the Twentieth Century Fund, make it clear that if America is to widen domestic markets for goods by lowering prices, the place to do it is in the realm of distribution. For decades, they point out, 'the inventive genius of American business has been chiefly dedicated to the lowering of production costs through mechanization and scientific management,' but the 'same inventive genius has hardly begun to be applied to the reduction in distribution costs.' Out of every dollar spent for finished goods in 1929 -- the year in which the largest volume of goods was sold -- 59¢ went for distribution -- \$38,500,000,000 (out of a total of \$65,600,000,000)..."

Artificial Insemination Farm and Ranch (August) in an item on artificial insemination, says: "When anything is brought before the public in a sensational manner there is always danger of over-promotion, and too much is expected of it, with disappointing results. Just now this valuable expedient may be discredited by hasty and unsound efforts to make use of it. It is best adapted to the breeding of dairy cattle in small herds, under present conditions. The first consideration is to find a sire of proven

prepotency and character. Such bulls are rare, and few small herd owners can afford them. Artificial insemination multiplies the breeding capacity of such sires, and makes it possible for the small herd to secure offspring from them. A number of cooperative breeding societies have been organized, and there should be more. Their success, however, will depend on skilled veterinary service and a membership large enough to spread the overhead. On the whole it is no more expensive to breed to superior sires by this method than it is to keep an inferior sire the year round for the sake of a few calves."

Elevator Explosion The dust explosion in Calumet grain elevator A in Chicago on May 11 -- which resulted in a loss of nine lives, destruction of five large grain elevators, injuries to 30 men and a property loss of about \$3,500,000 -- probably started with the ignition of grain dust at the bottom of one of the legs, according to an announcement by the U. S. Department of Agriculture. A careful investigation of the disaster has just been concluded by Dr. David J. Price and Hylton R. Brown of the Department's Chemical Engineering Research Division. Long experience shows that fine dust in suspension, such as is commonly found around grain elevators, is highly explosive, needing only a spark or flame to touch it off. Regulations prohibiting application of suction before weighing grain entering the elevator, in the opinion of the engineers, prevent the elevator operator from providing adequate protection. Foreign material in the grain received at an elevator is frequently of the type which may produce sparks if it enters the grain-handling machinery. The engineers believe some system should be developed whereby dust might be removed during the handling of grain, with supervision to prevent any operating abuses which may affect grain weights. (Grain and Feed Journals, July 26.)

Corn Storage Allowance The Agricultural Adjustment Administration has announced that, in order to simplify the corn resealing program and place farm and elevator storage on an equitable basis, the storage allowance is being increased to 7 cents per bushel with the stipulation that the farmer or elevator storing the corn carry insurance. Provisions of the resealing program as it was originally announced provided for a 6 cent allowance, but the warehouseman was not required to provide for insurance. In some cases, however, State statutes require that warehouses provide insurance. Warehouses will provide insured warehouse receipts as is customary. Farmers, however, will have the benefit of a new "self-insurance" plan on corn which they reseal. The farmer will pay his insurance to the County AAA Committee at the time of the loan renewal. This will be set aside by the Commodity Credit Corporation in a special fund from which losses will be paid. This type of insurance will run about one-fifth of a cent per bushel per month for corn in farm storage and will mean a considerable saving to the farmer in most cases.

Senate Committee on Foreign Relations reported without
August 2 amendment H. J. Res. 320, to amend the law requesting
the President to invite the International Statistical
Institute to hold its 1939 meeting in the U. S. (S. Rept. 1070).

Received from the President the following supplemental appropriation estimates, which were referred to the Committee on Appropriations: Claims for damages to privately owned property, Agriculture Department, \$323.67 (S. Doc. 102); To cover losses of Government employees in foreign countries due to appreciation of foreign currencies, proposed provision relating to (S. Doc. 107).

Announcements were made of intentions to submit amendments to bills as follows: By Mr. McKellar: To S. 4585, to reimburse the cotton cooperative associations for losses occasioned by the Federal Farm Board's stabilization operations; By Mr. McCarran: To H. R. 7462, 3rd deficiency bill, a total of \$21,500 for Mormon cricket control at the Bozeman, Mont., station; By Messrs. LaFollette and Wheeler: To H. R. 7462, 3rd deficiency bill, authorizing use of Federal Farm Mortgage Corporation funds for refinancing farm mortgages subject to provisions of Farm Tenant Act; By Mr. George: To S. 2904 and H. R. 7171, amendments prohibiting export subsidies on unmanufactured cotton.

House Passed H. R. 7462, 3rd deficiency appropriation
August 2 bill, which was reported from the Com. on Appropriations (H. Rept. 1439). Cannon of Mo. amendment to restore the Budget estimate of \$119,599,918.05 for the Commodity Credit Corporation was rejected by a vote of 110 to 116. As passed the House, this bill contains no items for this Department.

Agreed to conference report on H. R. 4998, to amend the Packers and Stockyards Act (this bill will now be sent to the President).

At the request of Mr. DeRouen H. R. 4635, to transfer certain lands from the Sierra National Forest to the Yosemite National Park, Calif., was recommitted to the Committee on Public Lands.

Committee on Civil Service reported the following: with amendment, S. 1610, to prevent discrimination against graduates of certain schools and those acquiring their legal education in law offices, in the making of legal appointments (H. Rept. 1442); and without amendment, H. R. 1975, to amend the Annual and Sick Leave Acts so that leave charges shall be made only on regular work days (H. Rept. 1443).

Committee on Irrigation and Reclamation reported without amendment H. R. 6613, authorizing construction of water conservation and utilization projects in the Great Plains and arid and semiarid areas (H. Rept. 1446).

Concurred in the Senate amendment to H. R. 6614, to amend the Government Losses in Shipment Act (this bill will now be sent to the President).

Passed H. R. 7293, to make permissive the acquisition of legislative jurisdiction over land acquired by the U. S.

(Prepared by the Office of Budget and Finance.)

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Vol. LXXIV, No. 24

Section 1

August 7, 1939

DROUGHT AID FOR NORTHEAST The Agriculture Department informed President Roosevelt recently that relief measures were being extended to farmers in drought-stricken Northeastern States.

Replying to a memorandum from Mr. Roosevelt instructing various agencies to prepare to render all possible aid, Acting Secretary of Agriculture Brown said the Agricultural Adjustment Administration already had utilized its authority to make payments for seeding grasses and "similar close-growing crops" where previous seedings had been lost because of drought. "Further assistance in the form of loans or grants by the Farm Security Administration can and will be given if conditions warrant it," Mr. Brown added. He said the Federal Surplus Commodities Corporation is in position to make purchases which can be distributed to needy farm families if circumstances warrant this action. (A.F.).

RETIREMENT LEGISLATION Postmasters through the country are brought within the retirement laws for civil service employees of the government in an act signed recently by President Roosevelt. The measure also allows employees to provide for widows or other dependents and authorizes them to increase their pension contributions up to 10 percent of their salaries. The act becomes effective January 1. The act continues for one year the pay of employees retiring from the government service because of total disability. The present limit is 90 days. (Washington Star.)

U.S.-SOVIET TRADE PACT The United States and the Soviet Union have renewed for another year the trade agreement expiring August 5, the State Department has announced. This will be the fifth consecutive year that a trade agreement has been in effect between the two countries, the first having been operative in 1935-36. As in the previous agreements, the Soviet Union guarantees to purchase American goods to a specific minimum amount, which it has thus far always exceeded, in return for an American guarantee of unconditional most-favored-nation treatment of imports from the Soviet Union. The Soviet guarantee, which was \$30,000,000 in the first two agreements, will be continued at \$40,000,000, as in the past two years. (New York Times.)

Subsistence In American Forests (August) there is a short
Fire Towers article on "Subsistence Fire Towers" by William F.
 Jacobs. He reports that Florida has towersite subsistence farms, "developed, in most cases, with the assistance of the Civilian Conservation Corps, and offering the lookout candidate some inducement other than a low, part-time, monthly wage. He is assured of a desirable home the year around, the basic elements for a farm program of his own choosing, and a cash income for at least a portion of the year. These neat, attractive farmsteads are also serving very effectively as public relations focal points. A minimum of ten acres is acquired either by gift or purchase. A development plan, adapted to the topography and possibilities of the particular site, is then drafted and approved. The layout of buildings is the first consideration in this plan. Their locations with respect to the fire tower itself, to roads or highways, and to each other are of primary significance... The farming program is left to the judgment and experience of the towerman selected, although normally determined by the soil quality and local practices. A subsistence program is all that is contemplated and includes chickens, a milk cow, one or two brood sows and the usual 'truck patch' from which the family derives its customary vegetables and greens. A little patch of a cash crop, such as tobacco, is not unusual. The development, attractiveness, and livelihood possibilities of these miniature farms command the respect of rural people generally."

Record "Radiant Romance Storrs 587210, the 16-year-old
Jersey Cow Jersey cow which has produced more milk in production tests authenticated by the American Jersey Cattle Club than any other Jersey cow, has just broken the breed life-time record for butterfat yield in such tests by producing 7,549.80 pounds of butterfat in fourteen completed tests and the first 45 days of her fifteenth test now being made in the University of Connecticut herd, where she was born and has lived all of her life," says Hoard's Dairyman (August 10). On test every year since she became a producing member of the herd at 2 years and 2 months of age, she had yielded more than one hundred and fifty-one times her own body weight in milk, a total of 151,319 pounds up to the time she reached the championship position in butterfat production. She is the first cow in almost a decade to hold both the milk and butterfat championships of her breed for lifetime yield..."

Rail-Truck A new freight system was demonstrated recently at
Transfer the railroad track area exhibit at the New York World's Fair. The new device is designed to return to the railroads much of the freight business that has been diverted in recent years to motor carriers. J. M. Davis, president of the Eastern Presidents Conference of Railroads, opened the exhibit by transferring a 4,000-gallon loaded steel tank from a rail car to a highway vehicle. By push-button control adjacent to the car, Mr. Davis effected the interchange in ninety seconds. (New York Times.)

Flavor of Frozen Food "Flavor of cooked, frozen foods should be practically the same as that of cooked, fresh foods," says a paper by Jennie Wilmet, Home Economics Department, University of Texas, in Refrigerating Engineering (August). "During the preparation for freezing, over-blanching causes inferior flavor, but when this process is carried out properly, there is no undesirable flavor as a result of the freezing process. In some instances, better fresher flavor may be expected from frozen foods than from fresh. The fruits that are harvested green for long shipping could not be expected to have as desirable flavor as those that are fully ripe when gathered. The latter may be used for freezing. Certain vegetables become inferior in flavor very soon after they are gathered. Consequently it is difficult to find peas and corn on a city market that are of as fine flavor as those that are cooked very shortly after they are taken from vines and stalks. It is the aim of both canners and freezers to have these vegetables processed as soon as possible after harvesting, and the freshness of flavor in the frozen products is due to the speed with which the process is carried out. There is a direct relationship between the retention of juice when meat is cooked and its flavor. Quick freezing does not rupture the cells of meat to an appreciable degree, and when these meats are cooked, the flavor is excellent. Small cuts -- steaks and chops -- have better flavor if they are cooked without previous thawing..."

Flour Subsidy A subsidy of \$1.40 a barrel on wheat flour shipped to Great Britain has been announced by the Department of Agriculture. The subsidy, similar to that on unmilled wheat, has been in effect on wheat and flour exports to other countries since last fall but was not effective on flour exports to the United Kingdom on account of an agreement, which expired on July 15, by which British millers took 25,000,000 bushels of surplus United States wheat on condition that no subsidized flour be sent into their country during the agreement period. The department said the new subsidy rate might be changed from time to time. (Press.)

Wheelbarrow Duster A new wheelbarrow type of row-crop duster is powered by the traction of the front wheel. The power is transmitted on a V-belt and pulley to a small dust-blower unit on the wheelbarrow frame. Two nozzles will simultaneously dust two rows of plants, and there is a guard to protect the plant foliage against injury. (Country Home Magazine, August.)

Straw Catcher "A small, two-wheeled trailer, quickly attachable to most harvesting combines, makes it possible to save all straw, chaff, and waste grain," says Country Home Magazine (August). "It holds enough straw to make a large-sized bale, and is operated by a trip rope, making it easy to dump the piles in windrows."

Senate Both Houses agreed to the conference report on
August 3 S. 2697, to facilitate the execution of arrangements
for the exchange of surplus agricultural commodities
produced in the U. S. for reserve stocks of strategic and critical
materials produced abroad (this bill will now be sent to the President).

Passed the following: H. R. 5835, to authorize the President to
render closer and more effective the relationship between the American
republics; H. J. Res. 320, to amend the law requesting the President
to invite the International Statistical Institute to the U.S. in 1939
(this joint resolution will now be sent to the President); S. 2626, to
amend the act providing for administration of Blue Ridge Parkway, Va.
and N.C.

Committee on Public Lands and Surveys reported without amendment
H. R. 3794, to establish Kings Canyon National Park, Calif. (S. Rept.
1134).

Committee on Judiciary reported without amendment H. R. 6832, to
provide for protection of witnesses appearing before any department,
etc. (S. Rept. 1135).

Committee on Civil Service reported without amendment S. 2876, to
amend the Annual and Sick Leave Acts so as to charge leave only for
regular work days (S. Rept. 1136).

Committee on Civil Service reported with amendments S. 282, to
provide that State employees employed in connection with programs as-
sisted by the Federal Government shall be selected through a nonpo-
litical civil-service plan.

Received from the President the following supplemental estimates:
Judgments of District Court (S. Doc. 112); judgments rendered by
Court of Claims (S. Doc. 113); claims allowed by General Accounting
Office (S. Doc. 114).

House Refused to consider S. 591, to amend the U. S.
August 3 Housing Act (contained provision for rural housing),
by a vote of 161 to 191.

Concurred in Senate amendments to H. R. 5625, Coffee Federal
seed bill (this bill will now be sent to the President).

Concurred in Senate amendments to H. R. 6634, amending previous
Flood Control Acts and authorizing preliminary examinations and sur-
veys for flood control (this bill will now be sent to the President).

Concurred in the Senate amendments to the following: H. R. 5747,
to authorize addition of certain lands to Wenatchee National Forest;
H. R. 2752, to include within the Kaniksu National Forest certain
lands owned or in course of acquisition (these bills will now be sent
to the President).

Passed H. R. 6480, to amend the Agricultural Adjustment Act
(warehouse provisions).

(Prepared by the Office of Budget and Finance.)

DAILY DIGEST

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Vol. LXXIV, No. 25

Section 1

August 8, 1939

WALLACE ON COOPERATIVES

Secretary Wallace last night asserted the nation should "build a stronger bridge between democracy and capitalism," possibly by making "our corporations more democratic in form," says a Chicago report by the Associated Press. In an address prepared for delivery before the American Institute of Cooperation he told leaders of the agricultural cooperative movement they could draw inspiration and guidance from the experiences of Finland and Sweden. "As they have done, what we need to do is somehow to build a stronger bridge between democracy and capitalism," said the Secretary.

"One way to accomplish this, perhaps, would be to make our corporations more democratic in form. Our social-minded corporation officers and directors could study with profit the set-ups of the stronger cooperatives, with their interplay of control and function among the members, directors and management. This interplay, when it operates smoothly and with balance, is a splendid demonstration of the possibilities of old-fashioned democracy applied to new-fashioned problems..."

Secretary Wallace reported a consolidated balance sheet of 10,547 farmers' cooperative marketing and purchasing associations showing a grand total of assets of more than \$500,000,000 against liabilities of \$222,000,000.

SEEDS FOR DROUGHT AREA

Farmers who wish to make special midsummer seedings to replace spring hay and pasture seedings killed by the drought will be aided by an emergency program, A. W. Manchester, director of the Northeast Division of the AAA, announced yesterday. Under a plan of joint assistance by states and the AAA, legume and grass seeds will be distributed to farmers through local seed dealers. The program contemplates that the AAA will give the seed and the farmer the labor needed to repair this part of the drought damage. Any farmer within a designated drought county who has lost spring seedings, legumes or pasturage is eligible to ask for the midsummer seeding. Participation in the drought program will not affect regular 1939 conservation payments. (Press.)

COTTON CREDITS FOR SPAIN

The Export-Import Bank has agreed to provide 80 percent of credits amounting to about \$13,750,000 to permit Nationalist Spain to acquire 250,000 bales of cotton in this country and start the distressed Catalan mills again, Warren Lee Fierson, president of the government bank, announced yesterday. The cotton is to be delivered in 10 monthly installments of 25,000 bales each. (New York Times.)

Civil Service The Civil Service Commission announces the following examinations: No. 78, unassembled; Senior Marketing Specialist (Livestock Market Supervision), \$4,600; Marketing Specialist (Livestock Market Supervision), \$3,800; Associate Marketing Specialist (Livestock Market Supervision), \$3,200; Assistant Marketing Specialist (Livestock Market Supervision), \$2,600; Agricultural Marketing Service; No. 79, unassembled; Marketing Specialist, \$3,800; Associate Marketing Specialist, \$3,200; Assistant Marketing Specialist, \$2,600. (Optional Subjects: 1. Grain, hay and feed market reporting; 2. Hay standardization and inspection; 3. Bean and soybean standardization and inspection. Agricultural Marketing Service; No. 77, unassembled; Chief Dietitian, \$2,300; Head Dietitian, \$2,000; Staff Dietitian, \$1,800. Applications must be on file not later than the following dates: (a) September 5, if received from States other than those named in (b); (b) September 8, if received from the following States: Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming.

Adhesives Aid Business Week (August 5) says "a revitalizing force of both the plywood and wood furniture industries is synthetic adhesives." Credit must go, in part, it says, to the U. S. Forest Products Laboratory. "The laboratory, working cooperatively with big plywood producers (a swell example of government working hand-in-hand with business), has solved many of the scientific problems of wood structure, moisture content, adhesives, and the like. Now available to the plywood industry is a whole list of optimum practices in wood selection, plywood 'lay-up' (the number and thickness of plies, and the direction of wood grain in adjacent plies to make a panel of a given strength and thickness), adhesive application, kiln practice, and a host of other techniques. Rule-of-thumb gives way to science..."

Locker Plants "The cold storage locker plant which has been so popular in the Middle West is now taking hold in the South," says Ice and Refrigeration (August). "The Alabama Department of Agriculture has set out to encourage the erection of some 50 plants in Alabama...Mississippi leads with a dozen cooperative cold storage plants erected with federal aid, but others are being erected largely by private enterprise...Where new buildings are erected, the estimated cost per locker runs \$25 to \$30, and sometimes more. Locker plants being erected so far have an average of 200 to 300 lockers. The first plant erected in Tennessee was by the Sumner County Cooperative Creamery at Gallatin. Opened in 1937 it has been a conspicuous success. A second plant opened at Cookeville, Tennessee, in August, 1938...Farm leaders point out that quick freezing facilities are needed even more in the South than in the North."

Senate
August 4 Passed H. R. 7462, third deficiency appropriation bill. Amendments agreed to: Commodity Credit Corporation, \$119,599,918.05, by a vote of 61 to 7; Agricultural Marketing Service (Warehouse Act), \$35,000; Bureau of Entomology and Plant Quarantine (Mormon cricket), \$6,500; United States Coronado Exposition, \$250,000; Additional judgments and claims. Amendments rejected: Prevailing wage-rates for work relief projects (several amendments failed to attain the necessary two-thirds majority); Wheeler-LaFollette amendment to provide for refinancing farm mortgages from Federal Farm Mortgage Corporation, by a vote of 38 to 30 (two-thirds majority necessary to suspend rules, since amendment was legislation on an appropriation bill).

Passed with amendments H. R. 5681, to authorize the Federal Surplus Commodities Corporation to purchase and distribute fish products. The House later agreed to these amendments with clarifying amendments.

Passed S. J. Res. 182, extending until Jan. 15, 1940, the life of the Joint Committee to Investigate the Adequacy and Use of the Phosphate Resources.

Committee on Education and Labor submitted a preliminary report on S. 1620, National health bill (S. Rept. 1139).

Committee on Public Lands and Surveys reported with amendments S. 929, to add certain lands to Siuslaw National Forest, Oreg. (S. Rept. 1044).

House
August 4 Passed the following: S. 2240, to provide for a national census of housing (the Senate later agreed to the House amendments, and this bill will now be sent to the President); H. J. Res. 375, to authorize the Commodity Credit Corporation to sell 175,000 bales of cotton to foreign governments, which was reported by the Committee on Banking and Currency (H. Rept. 1455); S. 1802, authorizing construction of water conservation and utilization projects in the Great Plains and arid and semiarid areas.

Conference report on H. R. 6635, amending the Social Security Act, was submitted and agreed to.

Senate
August 5 Both Houses agreed to the conference report on H. R. 7462, third deficiency appropriation bill. This bill will now be sent to the President. As reported from conference, the bill contains the following items: Commodity Credit Corporation, \$119,599,918.05; Agricultural Marketing Service (Warehouse Act), \$17,500; Coronado Exposition, \$200,000. The \$6,500 Mormon-cricket item was stricken in conference.

Agreed to the conference report on H. R. 6635, to amend the Social Security Act (this bill will now be sent to the President).

Passed with amendments H. J. Res. 375, to authorize the sale of surplus agricultural commodities by the Commodity Credit Corporation. The House later agreed to the amendments, which require settlement to

be made 60 days after delivery and limit such sales to 500,000 bales of cotton. This joint resolution will now be sent to the President.

Agreed to House amendments to S. 1802, authorizing construction of water conservation and utilization projects in the Great Plains and arid and semiarid areas. This bill will now be sent to the President.

Agreed to House amendments to Senate amendments to H. R. 5681, to authorize the Federal Surplus Commodities Corporation to purchase and distribute surplus fish products. This bill will now be sent to the President.

Committee on Public Buildings and Grounds reported without amendment H. R. 7293, to amend law to make permissive the acquisition of legislative jurisdiction over land or interests in land acquired by U.S.

House August 5 Passed S. J. Res. 182, to extend the life of the Joint Committee to Investigate the Adequacy and Use of the Phosphate Resources of the U. S. This joint resolution will now be sent to the President.

Both Senate and House adjourned sine die.

NOTE: Pending legislation not enacted at this session does not fail, but retains its present status and may be enacted at the next session, which convenes on January 3, 1940.

(Prepared by the Office of Budget and Finance.)

States Lower Trade Bars The new tendency to take down the interstate trade barriers which have been accumulating in recent years has been spurred by a definite movement led by the Council of State Governments, says a Chicago report in the Christian Science Monitor (July 22). This year at least five states have taken from their statute books laws jeopardizing commerce and friendly relations with neighboring states. Legislatures in scores of others refused to pass trade barrier proposals. Repeal of Oklahoma's 1937 port-of-entry law had probably the most direct and widespread effect on the layman, the private citizen or tourist. Connecticut refused to approve a bill which would compel operators of out-of-state trucks and buses to purchase Connecticut gasoline by limiting the size and number of gasoline tanks on commercial vehicles. Arizona and Missouri also rejected discriminatory bills against out-of-state trucks. Ohio defeated a bill under which state institutions could purchase only coal mined in Ohio. Connecticut refused passage to legislation providing that all state contracts for supplies and public works must be awarded to resident bidders if their bids were not more than 3 percent higher than those of out-of-state bidders. Oregon and Vermont turned down tax bills against oleomargarine. Iowa refused to increase its oleomargarine tax. Arkansas refused to levy a 25 percent duty on products of four mid-western states which had imposed tariffs on certain Arkansas farm products. California refused to pass a bill which would have established a wall for foreign butter.

DAILY DIGEST

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Vol. LXXIV, No. 26

Section 1

August 9, 1939

FOOD STAMP EXPANSION

The possibility of generally extending the food stamp plan for distributing surplus agricultural commodities, now being experimentally tried with government relief clients, to cover also low-income workers in private industry, was seen in an announcement from Secretary Wallace yesterday, says the New York Times. At present the surplus foods are available only to relief beneficiaries, but the Secretary said that an experiment planned at Shawnee, Oklahoma, would be closely studied after it had been put into operation, to see if the scheme could be expanded to cover the situation of the privately employed. Mr. Wallace said there would be a gradual expansion of the general plan within the next few months to help relief workers in other cities than Rochester and other communities where it is now in operation.

"If further studies continue to show the same encouraging results," Mr. Wallace said, "the food stamp plan may develop into an extremely effective national program through which to move surpluses of those agricultural products for which there is an elastic demand, at the same time providing more food for those of our people who now have inadequate diets. The surveys carried out to date show that the mechanics for operation of the plan have run smoothly...We intend, of course, to continue these studies."

DR. CURTICE

Dr. Cooper Curtice, outstanding authority on cattle tick fever, died yesterday at his home in Beltsville, Maryland, the Department of Agriculture announces. Dr. Curtice, who was 83 years old, had been engaged in research for the Bureau of Animal Industry for many years and had continued his studies after retirement in 1930. (Press.)

ECONOMIC POLICIES

The United States will find it impossible to expand its trade relations with the totalitarian nations until they see fit to alter their fundamental economic philosophies, Henry F. Grady, former vice chairman of the Tariff Commission, said yesterday after he was sworn in as Assistant Secretary of State. The assistant secretaryship is charged, in the organizational scheme of the State Department, with the supervision of all economic, commercial and financial policies. Mr. Grady made clear that he was speaking only of the practical effects of the totalitarian trade practices and that he and his colleagues have no prejudice against totalitarian economics as such. (New York Times.)

Colchicine
in Plant
Research

Scientists of the Department now use colchicine to produce heritable changes in plants in one generation instead of waiting for nature to produce them. The colchicine drugs young plants in the process of rapid cell development, resulting in cells with a double or redoubled number of chromosomes. This phenomenon opens new fields of research in breeding such economically important plants as cotton, certain cereals, tobacco, fruits and grasses.

Typifying the work is the success of Bureau of Plant Industry scientists with cotton. By using colchicine to double the number of chromosomes of infertile hybrids produced by crossing Asiatic and American upland cotton, the bureau scientists are seeking to give them the power to reproduce. Such a fertile hybrid promises many practical results, they point out. Some wild species have several qualities, particularly resistance to drought, insects and disease, that would be invaluable if it were possible to combine these qualities with American varieties by breeding. The bureau scientists may have a true-breeding hybrid from the cross between American upland and Sea Island. The first generation cross between the two varieties has "hybrid vigor" in addition to the long staple of Sea Island and some early maturity of upland. This hybrid, while fertile, goes to pieces after the first generation cross and loses its desirable qualities.

Similar results with tobacco are reported by bureau scientists. Cultivated tobacco crossed with wild types produces hybrids that are infertile. By doubling the chromosome number with colchicine, fertile and approximately true-breeding hybrids were obtained. Such tobacco crosses have possible economic value for the production of insecticides, the scientists point out. Cultivated tobacco has been crossed with two wild types, *Glaucia* and *Sylvestris*. *Glaucia* contains an alkaloid, anabasine, instead of nicotine. *Sylvestris* contains nor-nicotine, another alkaloid related to nicotine. The wild tobacco alkaloids, which dominate in the hybrid, are more potent than nicotine in killing certain insects. Furthermore, the colchicine-treated hybrids produce wider and thicker leaves, which are expected to give higher yields for insecticides.

Improved flavor of berries and a wider adaptation of certain cool weather fruits are the possibilities that colchicine brings to small fruits, the bureau scientists report. They hope to produce fertile hybrids from such a cross as the Loganberry and the ordinary blackberry. The hybrids have delicious flavor but the plants thus far produced were sterile. By crossing the red raspberry with other berries more able to withstand the warm southern climate, a new raspberry variety capable of growing farther south than at present may be a reality. The bureau horticulturists also have doubled the number of chromosomes in the cultivated strawberry and in peaches.

Wheat-Quality
Improvement

Writing on quality wheat, M. N. Beeler, associate editor of *Capper's Farmer* (August) says in part: "Bakers are becoming more and more critical of flour, so that a situation has developed wherein they are using one standard of excellence and the grain trade is using another which does not reveal all the important qualities of wheat from the flour user's viewpoint. 'Certain new varieties developed by farmer plant breeders and promoted by them or by seed houses will meet all the traditional tests,' said Dr. John H. Parker, director of the Kansas Wheat Improvement Association, 'but they fail to meet the standards which bakers now use. Chiefkan in particular, which recently has been distributed in Kansas and northern Oklahoma, may excel a variety like Turkey, for instance, on all points of the conventional grain trade tests, yet eastern bakers will not have flour made from it...Gluten strength is associated with variety. Some wheats are good and some bad, genetically. Tenmarq, a comparatively new variety which makes an excellent flour, may go yellow berry which by standards of appearance indicates a starchy wheat of low protein. But despite this yellowing, the quality of Tenmarq gluten remains in the berry and still will make a good loaf. Another fact bakers have discovered is that high protein content is not necessarily associated with gluten strength.' The domestic grain trade has complained that it is impossible to identify wheat by variety after it is threshed. But among hard red winter wheats Tenmarq almost bears a trademark because of its distinctive short berry. Further, it can be readily distinguished in the field by plant characters. In regions where Tenmarq is not adapted, other accepted varieties may be identified in the field. This fact should suggest a means of producing the quality which millers and bakers demand. It can be done by one-variety communities similar to those that are developing in the South and Southwest where producers of a locality all agree on one variety of cotton. Buyers pay a premium for it. Wheat growers who will grow a variety approved by millers likewise are entitled to a premium..."

Barge
Route

The Tennessee River, with the first of the two phases of its improvement for navigation completed by the Tennessee Valley Authority, recently received the first test of its navigability for the entire distance of its six-foot channel, from Paducah, Kentucky, 692 river miles to Chattanooga. A small Diesel-motored boat with one barge in tow completed a trip from St. Louis with 25,000 bushels of wheat for a flour mill. This event marked the beginning of regular freight shipments over the entire length of the year-round six-foot navigable channel which the TVA completed six months ago. (New York Times.)

Philippine Trade Bill President Roosevelt has signed a measure which will grant tariff relief to several important Philippine industries in their adjustment to independence status, says a report in the Washington Times Herald. The bill provides for the extension of trade preferences only until the islands are granted full independence in 1946. The 1934 Philippine independence act provides for a graduated export tax increasing by 5 percent annually on all Philippine exports to the United States. The new program stipulates that a gradually decreasing duty-free quota shall be substituted for the export tax as it applies to coconut oil, pearl buttons and cigars. Economic relief also is granted to Philippine embroideries made with American textiles. It carries a provision authorizing a Congressional study of post-independence relations, to be made not later than 1944.

Half-Year Foreign Trade The Commerce Department has reported the United States exported 11 percent less but imported 14 percent more in the first six months of this year than in the same period a year ago. A sharp reduction in European purchases of agricultural products was primarily responsible for the decreased exports, Secretary Hopkins said, and increased United States purchases of crude materials and semimanufactures for the increased imports. Exports to the United Kingdom, principal market for American agricultural products, declined 10 percent in value during the six-month period, the department said. Value of exports to all countries, including re-exports, was placed at \$1,415,427,000, compared with the \$1,590,788,000 for the first half of last year. Imports totaled \$1,094,563,000. They were \$960,955,000 in the first half of 1938. (Press.)

Grocers Back Food Stamps Announcement that Secretary Wallace is proposing gradual expansion to put the surplus food stamp plan on a nation-wide basis coincided with a statement yesterday by the National Association of Retail Grocers that heartily endorsed the system and urged all food retailers to support it in every way at their disposal. Appearing as an editorial in the latest National Grocers Bulletin, official publication of the association, the endorsement stated: "This plan helps not only the farmer but those on relief as well; at the same time it allows the grocer to handle the actual commodity distribution at a normal rate of profit. Grocers in every part of the country will find it much to their advantage to cooperate in every way with the Surplus Commodities Corporation." These definite reasons for support are outlined: "It will relieve the surplus situation on all listed products, thus helping the farmer and so aid in stabilizing the market. It will permit the grocer to merchandise these items profitably and completely eliminate free distribution by government agencies to relief clients. It will make these commodities available to relief clients without sacrificing the grocers' profit." (New York Times.)

DAILY DIGEST

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Vol. LXXIV, No. 27

Section 1

August 10, 1939

TOBACCO CONFERENCE

Farmer representatives of flue-cured tobacco growers are placing their hopes for better prices on prospects for sharp curtailment of production next year with quota restrictions on marketing. They concluded after a meeting with buyers that it would be better to let the record-breaking 1939 crop be sold in the usual manner with hope it would average between \$15 and \$18 a hundred pounds. Plans for an early farmer election on marketing quotas on the 1940 crop were put aside. Amendments to the 1938 farm act authorized Secretary Wallace to compute marketing quotas on the basis of acreage instead of poundage. Under the old law, when marketing quotas were invoked, a grower could only sell a specified amount of tobacco. The new method would permit him to sell all the tobacco he produced in his acreage allotment. (A.P.).

COTTON BIDS, SPANISH ORDER

Prices on the New York Cotton Exchange recovered 5 to 8 points yesterday, retracing about half the loss which followed Tuesday's government crop estimate. With the smallest carryover of free cotton on record, and only 137,000 bales of the new crop ginned to August 1 compared with 158,000 last year, an active demand for new cotton left only a limited quantity of hedges appearing on the contract market. Moderate trade and foreign buying tended to keep the list steady and final quotations were around the best of the day. (New York Times.)

The 250,000 bales of American raw cotton to be shipped to mills in Spain through financing arranged by the Export-Import Bank this week will be purchased in the open market, and not specifically withdrawn from United States Government loan stocks, Warren Lee Pierson, president of the bank, said yesterday. The shipments are expected to start immediately. Interest rate on financing the shipments, he said, would probably be set at 3 1/2 percent. (A.P.).

RECEIPTS FROM FARM PRODUCTS

Receipts from the sale of principal farm products were 1 percent larger this June than last in the South Atlantic States and 7 percent larger in the Western States. For the other four regions, the Bureau of Agricultural Economics reports decreases ranging from 3 percent in the North Atlantic to 10 percent in the East North Central States.

Frozen Food Preparation H. H. Plagge, of the Iowa Experiment Station, in Capper's Farmer (August) discusses frozen foods. Regarding their preparation for the table, he says: "The vegetables will have to be cooked, of course, but the fruit may be eaten cooked, thawed or while still partly frozen. Usually thawing requires 3 to 4 hours at a room temperature of 70 to 75 degrees F. Complete thawing may be delayed 18 to 24 hours by keeping products in a refrigerator at 44 to 50 degrees F. or longer by placing them in the refrigerator's freezing compartment. Some of the new automatic refrigerators have a special compartment sufficient for a week's supply of frozen foods. Fruits packed in sugar or syrup will thaw more quickly than brine packs or vegetables. Whether the vegetables are defrosted before cooking or placed over low heat while still frozen depends on individual preference. Thawed foods should never be frozen or be placed in storage again."

Grading Schools "Government grading schools are becoming very popular throughout the United States," says Turkey World (August). "T. W. Heitz, U. S. Department of Agriculture, conducts these schools. University of Nebraska Poultry Department sets up these reasons for attending a grading school: (1) Learn to tell when turkeys are fat enough and feathered well enough to dress out as prime; (2) Learn to select the best market type for breeding flocks; (3) Learn the methods others use to kill, dress, and pack turkeys; (4) Learn how to take an active part in your own marketing association; (5) Qualify as a licensed turkey grader or flock selecting agent; (6) Become acquainted with other turkey growers; (7) Compare your methods and results with those of other growers..."

Bull Calf Agreement To place better bulls at the head of dairy herds in Michigan, the dairy department of Michigan State College has developed a plan which resulted in placing 594 bull calves in 1938. Working with members of dairy-herd-improvement associations, the department invites owners of purebred cattle to sign an agreement to offer bull calves sired by proved sires at prices listed in the contract. In return, the college helps place the bulls. The contract states that the owners will sell bull calves from cows with records of 350 to 400 pounds for \$10 at two weeks of age; \$35 at three to four months; \$50 at six to seven months; and \$70 from nine to 12 months. The price goes up \$5 in each age division for every 50 pounds of butterfat over 400 except in the nine-to-12 months class, where it goes up \$10 per 50 pounds of butterfat. (Successful Farming, August.)

Federal Aid to States The Federal Government provided one-fifth of the revenues of the forty-eight states last year, the Federation of Tax Administrators reported recently. Grants to states for such purposes as highways, old age assistance, national guard and land grant colleges rose from \$37,600,000,000 in 1920 to \$622,500,000 in 1938, the federation said. (A.P.)

N. C. Soil
Laboratory

"A prospective savings of more than \$1,000,000, plus additional thousands of dollars in larger and better crop yields, are in store for North Carolina farmers with the establishment of a state soils laboratory to furnish scientific information of the proper fertilizer needed for the individual farm," says a report in the Raleigh News & Observer (July 31). "This is the opinion of Dr. I. E. Miles, whose appointment as director of the state department of agriculture's new soils testing division was announced recently. 'A fertilizer prescription for each farm and farm crop will be possible with soil testing work,' he said. 'Certainly farmers can save more than a million dollars a year by substitution of high-analyses fertilizers for unrecommended low-analysis goods now being used. Farmers, generally, cannot continue to buy a 3-8-3 grade of fertilizer not recommended for a single crop by the N. C. Experiment Station and expect a maximum return on their fertilizer investment, yet last year 3-8-3 constituted 30 percent of the total tonnage sold in North Carolina. It is safe to predict that scientific soil tests will reveal that such low analysis goods as 3-8-3 are unsuited for economical crop production on the majority of our farms.'..."

Future Weather
Forecasting

"How will weather be forecast in 1990, 50 years in the future?" asks Watson Davis, Director of Science Service, in a copyright story in Science Today (August 7). "This is what Dr. Willis R. Gregg, Weather Bureau chief, asked fellow meteorologists shortly before his sudden death last fall... Greater use of the radiosonde, the robot observer carried aloft by balloons, is predicted in many of the replies from America's foremost meteorologists. The present Weather Bureau chief, Comdr. Francis W. Reichelderfer, expected that floating radio robots would keep tab on the weather in open ocean spaces, flashing regular messages to allow charting of ocean conditions. A promising future for consulting meteorologists, serving many businesses and industries, is also foreseen by Comdr. Reichelderfer, who feels that hundreds of concerns need individual weather advice as much ^{more} than oil companies need geologists. A new instrument, one that 'feels' the weather like a person, welding temperature, humidity and wind movement into one value, is needed in the opinion of W. C. Devereaux, U. S. meteorologist at Cincinnati. If rockets become practical, they will be used to gather weather data from high in the atmosphere. Agricultural forecasts that look forward weeks and months to allow the farmer to plan his plowing, planting and harvesting are foreseen by J. B. Kincer, the Weather Bureau's climate and crop weather expert. Dr. W. J. Humphreys, noted meteorological physicist of Washington, expects television to allow the forecaster to see the sky at any place, far or near, when he wishes to see it. Maj. E. H. Bowie, U. S. forecaster at San Francisco, believes that a study of water vapor in the air will unlock many weather secrets..."

New Waxing Equipment Market Growers Journal (August 1) reports that a company in Philadelphia now has a "new small size waxing and drying unit, in response to the growing demand for an efficient yet comparatively inexpensive means of treating fruits and vegetables with wax emulsions...The unit consists of a wax tank and dryer, and has a capacity of two carloads a day. The structure and design allow treatment of a great variety of crops without bruising and without any major adjustments. The unit will handle apples, cucumbers, tomatoes, squash, potatoes, cantaloupes, eggplants; in fact, most of the commonly grown fruits and vegetables...Heaters are included, so that operations may continue at full capacity in humid or winter weather."

High Wool Production Sales of wool in the domestic market were relatively large in July and prices of many grades of wool advanced to the highest level for the current season, says the Bureau of Agricultural Economics. The increase in sales in July followed a decline in prices in the second half of June. The quantity of wool shorn or to be shorn in 1939 is estimated at 376 million pounds. This preliminary estimate is 4 million pounds or 1 percent larger than the quantity shorn in 1938 and is the second largest on record. This estimate does not include wool pulled from slaughtered sheep and lambs which averaged 65 million pounds annually in the 5 years 1934-38. Stocks of apparel wool held by dealers and manufacturers on July 1 totaled 255 million pounds, grease basis. Such stocks were about 42 million pounds smaller than a year earlier and were smaller than July 1 stocks in any of the 5 years 1933-37. These figures do not include wool held on farms and ranches in the producing States, which are fairly large at this time of year. But total stocks on July 1 probably were below the 5-year average.

Truck Crop Situation Dry weather during most of July seriously retarded the development of commercial truck crops, particularly in the Northeastern States. Rainfall came in many areas late in July and the first few days of August. Crops were revived and the outlook for yields of crops maturing during the late summer and fall was improved. Over much of the producing area from Michigan and Indiana eastward, the moisture supply is inadequate to carry crops for long without additional rainfall. In the Western States conditions are fairly good, except that a shortage of irrigation water threatens in some localities.

Shears on Wheels With a new type of shears one may clip grass, even back under shrubbery and bushes, without stooping or squatting. The shears are supported at the proper cutting height by two easy-rolling little wheels guided by a long tubular handle. A spring handgrip at the top enables the operator to keep a pair of shears snipping grass as the tool rolls along on its wheels. (Country Home Magazine, August.)

DAILY DIGEST

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Vol. LXXIV, No. 28

Section 1

August 11, 1939

CORN, WHEAT FORECASTS

The Agriculture Department yesterday forecast this year's corn crop at 2,459,888,000 bushels and the wheat crop at 731,432,000 bushels, based on the condition of the crops August 1. The corn forecast a month ago was 2,570,795,000 bushels, and wheat 716,655,000. Corn production last year was 2,542,238,000 bushels and the 10-year average, 1928-37, was 2,309,674,000. Wheat production (winter and spring wheat combined) was 930,801,000 bushels last year and the 10-year average 752,952,000. (A.P.).

WHEAT EXPORT PROGRAM

Secretary of Agriculture Wallace last night revised the wheat export subsidy program to July 31, 1940, in an effort to hold foreign markets gained in the past year. Under the new program, subsidies will be paid directly to exporters on a competitive basis. Under the old program, the government purchased the wheat and sold it to exporters at a price which would enable them to sell it abroad at a profit. Beginning tomorrow, exporters will purchase wheat directly from mills and elevators, seek a foreign market and advise the Department of Agriculture the amount of subsidy necessary to finance the export. Exporters offering to handle the wheat at the lowest subsidy will be awarded the contract. "The payment method of assisting the exportation of wheat will move the wheat into export more completely through normal channels of trade," Wallace said. (Washington Times Herald.)

MILK PRICE CLASSES

Milk producers, seeking high prices on Class I products, often forget that total returns obtained from sales in all classes are of greater importance, Dr. E. A. Stokdyk, deputy governor of the Farm Credit Administration, said yesterday, speaking to the American Institute of Cooperation. Dr. Stokdyk said groups of agricultural producers have overlooked their total returns when they obtained, through state or federal marketing agreement programs, a control of the supply moving to market. He listed several industries which have centered attention of the unit price and the restriction of production to obtain it, rather than on the production of a quantity yielding the largest total net returns. "Restriction of competition may result in increased efficiency and better service than is obtained through unlimited competition," Dr. Stokdyk said. (New York Times.)

Mo. Crop
Rotation

The editor of Capper's Farmer reports in the August issue that some interesting results have been obtained by the Missouri College of Agriculture with a crop rotation that "not only increases fertility but gives rather startling yields on poor land." "The test plot soil is shallow, low in phosphate, organic matter, is acid to the extent of 2 to 3 tons of lime an acre and has a tight subsoil. In 1937 and 1938, a 3-acre plot of this type of soil produced an average of 7.3 bushels of corn an acre. Contrast that with these results from an adjoining 3-acre plot of identical soil, which under a three year rotation of soybeans (hay), winter barley (grain), plus Korean, and oats plus Korean, produced an average of 2,818 pounds of soybean hay, 21½ bushels of winter barley, 613½ pounds of Korean hay, 22½ pounds of Korean seed, 759½ pounds of oats hay and 326½ pounds of oats grain. Corn failed completely on its plot in 1937 and made but 14.6 bushels an acre in 1938. On the rotation plot no lespedeza or oats were cut the first year. Army worm damage cut the winter barley yield to 14½ bushels in 1937, while it was 29.6 in 1938. This plot received a 250 pound application of 4-16-4 fertilizer..." There are many variations of the plan to fit local conditions, he said.

Stock Damage
Prevention

An article in Coastal Cattleman (August) by R. S. Cooper, tells how the Coastal Cattle Association and a packing plant in Lake Charles (La.) have cut down losses from injuries to livestock. "Thirty thousand dollars," it says, "have been spent at the Lake Charles plant to improve pens and facilities so as to eliminate possibilities of animals being hurt. All fences are seven feet high, floors are of concrete with depressions every few inches to prevent slipping, hay racks are high enough to keep cattle from running into them, bolts are rounded and sunk into the wood so they do not protrude. New scales recently installed at Lake Charles will hold two carloads of cattle, have a floor of criss-crossed wood strips to prevent slipping, and are surrounded by a fence constructed in such a way that no injury can occur to animals being weighed. Old tires are used to round off sharp corners in the pens and elsewhere. Canvas slappers, not whips, are used to drive animals. At all leading livestock markets now, records are kept of the cattlemen who bring in bruised stock. They are checked a second time, and if the animals they sell are still bruised, the commission men and other buyers naturally bid such a man's stock at low figures or do not bid on it at all next time he brings in some. There is anywhere from \$2 to \$10 loss on each damaged carcass. This means money lost to the man who pays top price and is later penalized by discovering he has purchased damaged stock...Farm animals respond to kind treatment. It pays in dollars and cents in the feed lots and it should be continued in the journey to market. It is a sound principle in animal husbandry and it is humane."

Insects via The American Journal of Public Health (August)
Airplanes contains an editorial on the introduction, through air-
 planes, of insects affecting man. In Miami, for example,
"the inspection is made primarily for the detection of living mosqui-
toes, particularly *Aedes aegypti*. During 1938, 398 airplanes were in-
spected at the airport. Of these, 187 harbored many dead and some live
insects. Of 651 insects recovered, 166 were alive. There were 45
mosquitoes on the plane; 40 dead and 5 alive. Of the 5 living mosqui-
toes, none belonged to disease carrying species. Among the dead there
was one *Anopheles albimanus*, which is one of the 26 listed by Covell
as being the chief malaria-carrying *Anopheles* of the world. The *Anopheles*
albimanus is found in Mexico, in Central America, and in South America,
so that the indications are that it came from one of those countries,
though it did not survive the trip. House flies, midges, gnats, and
other small flies, beetles, wasps, ants, moths, cockroaches, chinch bugs,
as well as two spiders were found during the year. One-half hour before
landing, planes from the south are sprayed with a standardized pyrethrum
extract, 2 grams of pyrethrin per 100 cc., plus 4 parts of a highly re-
fined mineral oil. After disembarkment of the passengers and crew,
thorough spraying is done and the plane closed for the night..."

Course in To meet the demand for information about cooperatives, Cooperatives the University of Wisconsin Extension Division has prepared a correspondence-study course in cooperative marketing in which both consumer and producer aspects of cooperation are considered. Professor Marvin A. Schaars, who conducts the course, explains that its purpose is to interpret for the student the historical background, basic philosophy, fundamental principles, possibilities, and limitations of the cooperative movement. (The Hoosier Farmer, August.)

Redder Pennsylvania plant specialists have been working
Rhubarb since 1915 to develop red coloring in the skin of rhu-
barb sufficient to enhance sales value. Starting with
1,333 seedlings, the elimination has continued until 4 varieties remain,
known as Penn State 1, 2, 3, and 4. Considerable work has also been
done with MacDonald, developed at MacDonald College at Quebec. All 5
varieties make large, vigorous growth. (Successful Farming, August.)

Bin Corn Storage The Department has announced the awarding of contracts for the purchase of 25,500 steel grain bins with a total capacity of 43,279,900 bushels of shelled corn. The bins are being purchased by the Commodity Credit Corporation to store at country points corn which may be delivered in settlement of the corn loans which matured August 1. The bin purchase is part of the re-sealing and loan renewal program designed to hold off the market the 257 million bushels of 1937 and 1938 corn under Government loan. Farmers may renew the matured loans and retain title to their corn by arranging

storage either on their farms or in local elevators. For holding their corn an additional 12 months, producers earn a storage payment of 7 cents per bushel. In some cases, however, farmers will deliver their corn to the Commodity Credit Corporation instead of providing additional storage. The steel bins will be used only to store corn which farmers deliver in settlement of their loans.

Poultry
Industry

The Great Falls Tribune (August 3) commenting editorially on the recent World's Poultry Congress, says: "Secretary Wallace gave an address that was replete with information. It may surprise some people to read that the value of the poultry and eggs produced in the United States in 1938 was nearly a billion dollars and was about 12 percent of the total farm income. No other farm commodity except milk, cattle and hogs brought more gross income to the farmers last year. In the early rural phase of American life chickens were grown on the farm largely to supplement the family food supplies, but modern conditions have made it a real industry which does much to stabilize farm income. With big urban populations to supply, poultry keeping has become one of the most scientific and technical of farm operations. The agricultural scientists have given much attention to the feeding and breeding of poultry and to the subject of poultry diseases. Poultry enthusiasts are among the most ardent of breeders and showmen and they are to be found within the limits of every town and city as well as on a majority of the farms of the nation...The growth of commercial poultry plants apparently only complements and supplements farm production, for both have grown and the better methods adopted by the farm housewives, who largely manage the rural flocks, have increased the importance of chickens and eggs in the farm income..."

Cotton
Classing

A total of 350 cotton improvement groups had been approved by August 10 for free classification of their 1939 crop, the Agricultural Marketing Service announces. To this date last year only 3 applications for the 1938-39 ginning season had been approved. "Early filing of applications this year", cotton marketing specialists said, "indicates the increased interest farmers are taking in the classing and market news services." Applications already approved exceed by 38 the 312 approved for the entire 1938-39 ginning season, the first in which the services were available. Free classing and market information, under the amended Grade and Staple Estimates Act, aid growers to better market their cotton and to measure their improvement. September 1 has been set as the final date upon which applications may be filed.

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Section 1

August 14, 1939

EASTERN SHORE CROP DAMAGE Shortage of rainfall in Maryland, on the southern fringe of one of the most drastic droughts in the North-east States, curtailed crops during July, seriously affecting the Eastern Shore. The crop reporting service said yesterday average rainfall on the shore was about one-half normal and that yield indications of early Irish potatoes continued to decline as harvesting progressed. Southern Maryland, less severely parched, had an average tobacco crop indication of 730 pounds per acre as compared to 780 pounds last year. The indicated yield, however, was above the 10-year average of 704 pounds. The service reported the tobacco crop was ripening irregularly. Some crops were ready for storing, while others in the same community were just getting off to a good start. Wheat, a major cash crop, appeared to have been little affected by lack of moisture. (A.F.).

CIVIL SERVICE ON HATCH LAW Under the Hatch law employees in the executive civil service will be prohibited from becoming candidates for municipal office, the Civil Service Commission has announced. Such employees have been permitted to hold office in certain municipalities hitherto and some employees in navy yards, arsenals and military establishments have been permitted to take part actively in local elections. The latter now come under the law. The commission said it might refer to the Department of Justice the question of what procedure to follow in dealing with civil service employees who now hold municipal office under authority granted prior to the passage of the Hatch act. (New York Times.)

VIRGINIA TOBACCO Henry M. Taylor, agricultural statistician for Virginia, has reported that the largest flue-cured tobacco crop since 1927 was in prospect for Virginia leaf growers. Fire-cured, burley and sun-cured crops also were above average, he said. Mr. Taylor said the flue-cured crop matured about a week or ten days earlier than expected and that curing already was under way. Frequent rains during the latter part of July caused heavy growth and some damage from firing resulted, but the damage was not expected to be serious if weather conditions were favorable during the next two or three weeks. Mr. Taylor said the flue-cured production in 1927 was 95,000,000 pounds. The estimated production as of August 1 was 93,775,000 pounds, 5 percent above the July forecast. (A.I.).

1939 Forest
Receipts

Receipts from the sale of forest products from the 158 national forests during the fiscal year 1939 amounted to \$4,870,516. According to the Forest Service, this sum is \$261,662 more than last year but is considerably below the 1930 record of \$6,751,553. National forest receipts, reflecting somewhat current economic conditions, show a marked variation from year to year. The increase in receipts this year was chiefly due to an increase of \$349,623 from timber sales which netted \$2,785,611. Receipts from the sale of forest products such as Christmas trees, naval stores, and ferns were up by \$2,676, aggregating \$49,276. Water power receipts totaling \$100,265 showed a jump over last year of \$10,582. Returns from special fish and game permits in the Pisgah and Cherokee Forests amounted to \$5,353 as compared with \$369 in 1938. Lower market prices for lambs, wool and mutton in 1938 brought lower fees for grazing sheep and goats in the national forests. Receipts from this source fell off by \$61,848. Market prices for beef in 1938 were down and receipts from grazing cattle were lower than in 1939 by \$33,979. Returns from grazing sheep and goats amounted to \$615,129. Those from grazing cattle and horses were \$959,707. A special levy is made for personal privileges such as occupancy of national forest land for summer homes, hotels, resorts, dude ranches and fur farms. Receipts from such uses totaled \$364,766. Thirty-five percent of national forest receipts are returned to the States and apportioned to the counties from which the revenues were derived. Twenty-five percent goes into school funds and 10 percent for construction and maintenance of forest roads and trails.

Year-Round
Hog Packing

"Prospects for a good rate of hog-marketing this summer call attention to the fact that the old 'packing season' of the livestock trade no longer holds good," says Colin Kennedy, in Successful Farming (August). "...Whether due to shifts in hog-raising and marketing, or to changes in market outlets and eating habits, or both, recent years have seen radical changes in the handling of the hog kill....A lot of pork that used to be stored in tierces is now being sold fresh -- in cuts and shapes not dreamed of a few years ago. Even hams are in packer hands days instead of months, thanks to quick-curing methods. And the percentage of the remainder that formerly went into long-time cure and storage is finding its way into cans or into sausage. At present there are around 75 different meat products going into tins, and the poundage is increasing yearly....Today hams are being boned, cut into 3's, re-shaped, and put into 3 cans. The result is an apartment-sized ham. This boning and reshaping has been particularly valuable to the livestock trade in the past few months because hogs have been marketed at unusually heavy weights. Producers have benefited by prices holding on a more even keel, and consumers have a product of a size they can use -- two factors unknown in the days of the old 'season'".

Farmers' Markets "Florida is now able to offer a fairly comprehensive and practical exhibit of modern farmers' market sheds," says William L. Wilson, Director, Florida State Markets, in Manufacturers Record (August). "Up to the beginning of... 1939 fifteen farmers' markets, owned, constructed, equipped and supervised by the state, had been built and were in operation in Florida... These publicly owned farmers' markets vary in size from the turkey and chicken market at Branford, which is 40 feet wide by 60 long to the huge market at Plant City which comprises a loading platform and three large sheds -- two 58 x 600 feet and another 96 x 600 feet. Under a state law the State Agricultural Marketing Board -- comprising the Governor, Commissioner of Agriculture and Commissioner of Markets -- was created with authority to construct, equip and direct the operation of farmers' markets. The first market, at Sanford, was such a success that the Board presented a program to construct more markets. They also proved successful... Experience has shown that the average small farmer will not haul his produce to a far away market. These markets also must compete with 'selling in the field.' Practically every market we construct and organize differs to some extent from the other markets as to matters of policy. When we decide upon a location for a new market we try to build one which will conform to the existing methods of sale in that locality, and when the market is completed we suggest operations as nearly the same as those in use in the community, so far as consistent with sound practices...."

Great Plains "Foresters naturally enough have a greater and more Field Station direct interest in the Forest Service than in any other governmental agency," says an editorial in the Journal of Forestry (August). "Many other governmental agencies, however, are engaging in or contributing to forestry activities on an ever broadening front. It is not unlikely, as time goes on, that these agencies will make even greater contributions to American forestry than they are making today. The Bureau of Plant Industry employs only a small number of foresters, but some agencies of this bureau have made substantial contributions to a considerable number of forestry enterprises. One of the more important of these agencies is the Northern Great Plains Field Station at Mandan, North Dakota, which is now completing twenty-five years of active and fruitful work on prairie tree planting problems... The approach of the Station to prairie tree planting problems has been sane and sound. It has called the attention of farmers in the region to the difficulties to be encountered in establishing wind-breaks, as well as to the benefits to be derived from them. It has recognized, and the farmers of the region consequently now recognize, that trees in the northern Great Plains region neither live very long nor grow to large size. Furthermore, the farmers of the region are well informed of the difficulties,

the expense, and at times the inevitable failure of attempts to establish trees in the region. Yet they are keenly interested in planting trees and willing to stake their time and their money on the undertaking. The development of such a public attitude by a governmental agency must be regarded as a genuine achievement..."

Plant Worker

A new international Address Book of Plant Taxonomists, Geographers, and Ecologists is being prepared by the Editors of *Chronica Botanica* and will be issued in the near future in the "New Series of Plant Science Books." The Address Book will not only give the names and addresses of the scientists included, but also their scientific interests. It is hoped that similar address books will be prepared for the other branches of the plant sciences. The new Address Book will not only provide a conspectus of research workers and projects in pure taxonomy, ecology, geography, and palaeo-botany, but will list also scientists engaged in the systematic, geographic or ecological aspects of agronomy, forestry, horticulture, and pharmacognosy. Questionnaire cards for those who wish to be included can be had free on request by writing to the Editor, *Chronica Botanica*, P. O. Box 8, Leiden, Holland. (*Journal of Forestry*, August.)

Grouping Tractors

J. B. Torrance, University of Minnesota, in an article in *Implement and Tractor* (August 5) says that although most of our agricultural machines are readily classified as to size, the introduction of the tractor has brought a new angle into the situation. "Most tractors have more power than one horse," he says, "but all tractors of course do not have the same capacity. Consequently, it becomes necessary to classify tractors by putting all those with approximately the same capacity in a certain group. In the past, tractors have been classified into one, two or three plow groups. This has not proven satisfactory because of the great variety of conditions encountered...Data for indicating horsepower possibilities for all tractors in general use are available in the published results of the Nebraska Tractor Test. All the tractors have been tested by the University of Nebraska and have been assigned a rating as a result of this test. This rating, which is known as the highest permissible rating which the manufacturer may use for that tractor, is being used as the basis of a grouping of tractors according to capacity which is proposed here. At the University of Nebraska, the tractor is given a highest permissible rating for both belt work and drawbar work. It is proposed that the classification be made on the basis of the drawbar rating only, because tractors are purchased primarily for drawbar work. They are usually used for a larger number of drawbar operations than for belt work, and the power limit is usually encountered in drawbar work rather than in belt work. The highest permissible drawbar rating assigned by the University of Nebraska represents in general the optimum capacity of that tractor..."

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Section 1

August 15, 1939

FATS, OILS SITUATION

Secretary Wallace said today he did not feel an export subsidy on lard or other fats and oils is warranted, in view of an analysis of the fats and oils situation. He said other proposals for dealing with the conditions brought about by comparatively low prices for lard, cottonseed oil and other fats and oils are still under consideration. Among these proposals are: (1) Domestic diversion of some of the surplus fats and oils from edible channels to the soap trade; (2) the purchase of lard and possibly other pork products for distribution to the needy (this program, if it becomes necessary to undertake it, probably will begin sometime late this fall); (3) additional increases in exports of lard and soybeans through the underwriting of sound credit transactions (such a program would be undertaken by the Export-Import Bank and its possibilities are being discussed with bank officials). Lard and cottonseed oil shortening will shortly be made available through the stamp plan to those receiving public assistance. The corn resealing program, which will withhold from feeding 257,000,000 bushels of corn in 1940, will mean 300,000,000 less pounds of lard than would otherwise be produced, he said.

ROCHESTER FOOD STAMPS

The federal food stamp experiment in disposal of surplus foods through grocery stores in Rochester closed its third and most successful month yesterday, says an Associated Press report from Rochester. Sales of the orange stamps to relief clients through the local office of the Federal Surplus Commodities Corporation for the July 1-15 period totaled \$69,274 and for the three months \$325,576. The total orange and blue stamp distribution was \$488,364. During the three months of the experiment the FSCC sent into local channels of retail business \$162,788 in blue stamps, used to buy commodities formerly distributed direct by the government through a commissary. Secretary Wallace has said this increased low-income area grocery store sales about 12 percent. John A. McCauliffe, local FSCC representative, said about 10,000 relief clients had benefited so far, with participation of the larger families running as high as 80 to 85 percent.

PHOTO EXHIBIT

The Federal Dairy of the Washington Post says: "Photography fans in the government will do well to stop by Room 104, just off the Agriculture Administration Building and see the Forest Service exhibit. It will be there about three weeks."

5-Year Soil Conservation A report in the Amarillo (Texas) News (August 4) says a total of three and a quarter million acres of privately owned land in the Southern Great Plains region has received treatment for conservation of soil and water since the Soil Conservation Service was initiated in this area at Dalhart in 1934, H. H. Finnell, regional administrator, revealed recently in his annual report. Treatment of more than one million acres of this total has been accomplished during the past fiscal year. Region VI of the Soil Conservation Service includes Kansas and portions of Texas, New Mexico, Colorado and Oklahoma. In addition to this type of work, the service is carrying out restoration and management measures on approximately 850,000 acres of severely eroded sub-marginal lands that have been purchased by the Department of Agriculture within recent years. In addition to the work done by the service on farm and grazing lands of the region during the last year, water conservation and utilization have been emphasized. Chief among the water conservation projects are six lakes being constructed in the Texas Panhandle. Under the water facilities development program the Soil Conservation Service during the last year has cooperated with the Bureau of Agricultural Economics and the Farm Security Administration in assisting 114 farmers of the Plains area to construct small lakes and ponds and develop wells, springs and other water resources. Another highlight of conservation work in the region during the last year is the revegetation of severely eroded sub-marginal lands, Finnell stated. Co-operating with the Bureau of Plant Industry, state agricultural colleges and other agencies, the Soil Conservation Service made extensive plans for retirement from cultivation of some of the severely eroded lands in the region and planting these areas to native grasses. The service was working on and cooperating with farmers on 85 separate projects on June 30 as compared to 36 such projects a year ago, Finnell's report states.

Scientists from Europe "Dr. Charles A. Browne of the United States Bureau of Chemistry and Soils has prepared a report for the American Chemical Society on our scientific debt to victims of religious and political disturbances," says an editorial in the New York Times (August 13). "His array of historic celebrities who left Europe poorer for their emigration seems pale and unimpressive compared with the gaps in the faculty of many a once great German university...All told, about 1,700 eminent professors of science and philosophy have been forced to leave Germany and begin life anew in other countries. To their everlasting credit the United States, Great Britain and France have welcomed many of these unfortunate outcasts. Like other nations, we have not been unmindful of the richness of our acquisition...A decade or so hence we may have reason to date a new flowering of American science to this great exodus. We have been sending fewer and fewer students to Germany for post-graduate work in recent years. In medicine Germany has already dropped to third place, with ourselves in the first. In chemistry and physics she is fast losing ground because the universities have ceased to attract young men..."

World Sugar Agreement

"Announcement by the International Sugar Council of revised export quotas for the year beginning September 1 next directs attention to the prospect that in the third year of operation of the international agreement supplies for the so-called free market promise to balance closely with demand," says an editorial in Facts About Sugar (August). "...Stabilization of the international sugar market is the most important end to be attained through the sugar convention. On that, rather than on any undue temporary enhancement of prices, its permanent success must depend. The council has shown its realization of this consideration by its action in providing for deductions from third year quotas in order to permit prompt shipments to prevent a threatened shortage in supplies authorized for the year now drawing to a close. In estimating free market requirements for the coming year at 3,256,000 tons, the council as usual has leaned rather to the liberal side, but it is anticipated that there will be various further surrenders of quotas. These are estimated now at 71,000 tons but may prove to be larger. There is assurance for producers, however, in the council's statement that such surrenders will be allocated in a gradual and orderly manner so as not to produce a depressing effect on the market..."

Portable Seed Cleaner

Grain & Feed Journals (August 9) contains an item on a community portable seed cleaner. "The idea has been successfully practiced," it says, "by millers and grain dealers of Indiana and Illinois in cooperation with the Purdue University Experiment Station. An advantage to the grain buyer is that it leads to the growing of the one best variety that can be shipped in unmixed carloads to sell at a better price than mixtures. The equipment is mounted on a trailer to be pulled from farm to farm. The cleaner is a 29-D machine, air controlled, with traveling brushes, driven by a small gasoline engine of $1\frac{1}{2}$ h.p. The assortment of screens available makes it possible for the man in charge to clean every kind of field seed offered. The charge is 5 cents per bushel, with a minimum of \$2.50 for one setting. For smut treatment a seed treater is used, at 5 cents per bushel, with the same minimum charge."

Film Strip on Livestock TB

"Eradicating Tuberculosis from Livestock and Poultry" is the title of a new film strip just released by the U. S. Department of Agriculture. It illustrates some of the ways in which tuberculosis may attack livestock, and practical methods for its prevention. Tuberculin testing, sanitation, and the use of disinfectants in fighting the disease are emphasized. While the United States is now practically free of tuberculosis of cattle, the new strip is intended to help preserve this desirable condition and also to create interest in eradicating the disease from swine and poultry, large numbers of which are still affected. The film was prepared cooperatively by the Bureau of Animal Industry and the Extension Service. Information regarding this and other film strips of the Department may be obtained from the Extension Service, U. S. Department of Agriculture, Washington, D. C. (Coastal Cattleman, August.)

Economic
Survey

"Intensive research into economic fields have been outlined by Harry L. Hopkins, Secretary of Commerce," reports Frank L. Kluckhohn in the New York Times..

"...Officials said the studies were designed to assist business by making available information hitherto unobtainable at the department... The general fields to be investigated are: (1) Construction, particularly in low-cost housing and private house-building; (2) public utilities, including transportation, telegraph and perhaps power; (3) public finance, including capital formation, national income, monopoly and government spending and lending; (4) industry problems, involving studies of specific industries to work out possible revisions of corporate structures in cooperation with the industries; (5) extension of Latin American trade; (6) industrial mobilization in case of war; (7) state barriers to trade; (8) small business, including its condition and possible steps for improvement..."

"Midget"
Tractors

A Des Moines report in Farm Implement News (August 10) says that the "midget" tractors are finding a much greater market than expected. The volume of these machines sold in Iowa since their introduction has been astonishingly large. The principal market, of course, is with operators of 40 to 80 acre farms, but there has been an unexpected demand from operators of larger farms already owning and using larger tractors. These smaller machines are being purchased to do farm work usually handled by a team.

French Quotas
Removed

A Paris cable in Business Week (August 12) reports that the French government has announced the experimental removal of quotas on 60 commodities. While this action was accompanied with the warning that the quotas would be reestablished in case of dumping, the government may eventually take under consideration the removing of quotas on the 240 articles still under that system. Regular tariff rates still apply. Abandonment of quotas means junking a complicated system of import licensing which the French instituted at the beginning of the business recession.

Soils and
Fertilizers

An address printed in American Fertilizer (August 5) on soil science and fertilizer practices, by Richard Bradfield, Cornell University, says in part: "In order to use fertilizer with greatest efficiency soils must be kept in good physical condition. We had a striking example of this on our experimental field at Ithaca last year. A small plot was planted to corn, the entire plot was adequately fertilized. Different carriers of phosphate were tested. We found no difference in the value of the phosphate carriers, but we did find a tremendous difference in the yield of corn due primarily to the difference in the physical properties of the soil in different sections of the experimental plot. One section which had been under cultivation for a long period of time became very hard and intractable while the other remained loose and friable throughout the season. Both received the same application of fertilizer which was adequate for a high yield. A high yield was realized, however, only on that portion of the block which was in good physical condition..."

DAILY DIGEST

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Section 1

August 16, 1939

WEATHER AND CROPS

The Weather Bureau, in its weekly weather and crop bulletin, reports that the weather was favorable in the principal agricultural areas. The moisture situation, it says, is now favorable rather generally from the central Great Plains eastward, except in the Northeast. Showers of the week were especially helpful from the Lake region westward to the Rocky Mountains, and in considerable sections of the Southwest. Rains in the Southeastern States were mostly helpful, although there was some damage to crops and land in a few sections by heavy rains. In the dry northeastern area showers were again spotted, mostly light. In New England rainfall in general was inadequate. In New York pastures and late row crops show general improvement. Moisture is badly needed in New Jersey and Maryland.

DEMAND, PRICE SITUATION

The improvement in conditions affecting the domestic demand for farm products which began in May has continued through early August, says the Bureau of Agricultural Economics, but no boom of large proportions is in sight. The bureau's analysis of conditions in the more important industries which affect industrial production and consumers' incomes points to only moderate variations in these domestic demand conditions during the remainder of 1939. In the Demand and Price Situation, issued yesterday, the bureau also says that foreign economic conditions have continued the improvement noted in recent months. "Were it not for large world supplies of some products and continued government controls interfering with the normal flow of commodities, the improvement in foreign economic conditions would be reflected much more plainly in the demand for United States farm products."

EMPLOYMENT ON FARMS

The number of farm workers declined sharply during July. More than 11 million persons were employed on farms in the United States on August 1, the Agricultural Marketing Service reported yesterday. But this was over a million less than a month earlier and about 200,000 less than a year ago. The decrease from July 1 was slightly more than usual. The completion of the harvest of winter grains and hay crops in most parts of the country accounted, in part, for the sharp decline in employment during July.

Poison Bait
by Plane

The Farmer (St. Paul, August 12) contains an article on spreading 'hopper bait by plane. The author, W. H. Kircher, says in part: "The two questions most often asked about plane spreading of 'hopper bait are: (1) Is it efficient in killing the 'hoppers, and (2) how much does it cost? The first question we can answer from observation. Plane spreading is efficient so far as the kill is concerned. We were in buckbrush and sweet clover breaks where the growth was up to our chins. A group of us walked in parting the growth at random and counting 'hoppers on the ground. At one spot where it appeared that there were no more than an average number of dead 'hoppers we parted the growth, laid a piece of ^{paper} measuring 9 x 5 inches on the ground, marked around it, and then counted the 'hoppers in that area. There were 15 dead 'hoppers under the paper. That would be 532 per square yard. It costs eight cents per acre to spread bait by plane. That figure is based on 20 pounds per acre, and covers cost of transporting bait from the mixing station to the area landing field, putting it in the plane and spreading it. Whether plane spreading will become more common depends on appropriations for the spreading of idle lands, and also on whether or not farmers in large areas are convinced that they can hire spreading done by plane cheaper than they can spread the bait themselves."

Electric
Farm Model

"Effective demonstration is one of the best methods of familiarizing the farmer with the advantages of rural electric service," says G. H. Bliesner in Electrical West (August). "Considerable success has been enjoyed with a model farm and demonstration kit which has been shown extensively before meetings of poultrymen, dairymen, 4-H Clubs, rural electrification men and agricultural college classes...A model farm was built on a horizontal scale of 1 in. to $8\frac{1}{2}$ ft. and a vertical scale of 1 in. to 7 ft. Many of the ideas incorporated in the farmstead were secured from USDA Farmers' Bulletin No. 1132 (5 cents). The material cost was \$11.98 and no record was kept of the labor involved. A similar model has been suggested as a satisfactory project for a rural electrification 4-H Club...Equipment of this character is particularly adaptable to teaching 4-H Club boys the fundamentals of electricity and its proper application. Much work remains to be done in this field and the rural electrification specialist can perform a useful function in encouraging these future farmers to obtain both a practical and theoretical knowledge of electric power."

U. S. Cotton The possibility that Spain again may become an
for Spain important market for United States raw cotton is seen
 in a recent report by the Department of Commerce, that
with the end of the civil war, cotton exports to that country are
showing an upward trend. Before the civil war in Spain, that coun-
try was the seventh best market for raw cotton from the United States,
with annual shipment ranging from \$12,000,000 to more than \$16,000,000
in value. Shipments of raw cotton to Spain reached their lowest
level, 279 bales, in the 1936-37 season. There was a slight increase
in the 1937-38 season to 1,260 bales, and from August, 1938, to June,
1939, the total increased to 15,870 bales. (New York Times.)

Profit in In a paper in American Fertilizer (August 5)
Fertilizer Richard Bradfield, head of the department of agronomy,
 Cornell University, says: "If the farmer is to use
fertilizers with the maximum profit on crops of low acre value, the
efficiency of utilization must be increased. Increased efficiency is
at present partially offset by inefficiency in the utilization of fer-
tilizer after it is applied to the soil. To increase this efficiency
of utilization of fertilizers by crops we must have (1) more efficient
genetic strains of crops, (2) crops less susceptible to injury by
insects and disease, (3) soils kept in better physical condition, (4)
more information regarding the chemical dynamics of fertilizers in
the soil so that fixation in unavailable form can be reduced or at
least retarded, (5) erosion control, and lastly (6) an integration of
all the above into more rational cropping systems for the individual
farm..."

Ages of The leading article in New England Homestead (August
Orchards 12) is "Optimum Orchard Age" by Lawrence Southwick, who
 says in part: "Whether certain maximum ages for
orchards will ever be recommended is doubtful. Right now the swing
is toward young plantings with definite replacement program. By the
use of certain clonal rootstocks now under investigation by the
Pomology Department at Massachusetts State College, as well as by
other stations, it may be possible and practicable not only to control
tree size but to bring varieties into earlier maximum fruiting. This
would tend to make an orchard a more intensive, shorter-lived propo-
sition, and hence would allow the orchardist increased opportunity to
keep abreast of significant variety changes which will probably be
more prevalent in the near future than they have been in the immediate
past. The prime concern of the grower is to produce popular apples
at low costs. High unit -- whether tree or block or orchard -- yields
are essential. The best means of bringing this about may be a change
in soil management in one case, partial or total tree replacement in
another, a shift in orchard location in still another and so on. There
is no one cure-all..."

4-H Potato Records

"An 18-year-old member of the Resort 4-H Potato Club has set a record that growers both old and young can shoot at for years to come," says Michigan Farmer (August 12). "He is Sterling J. Sluyter of Petoskey. His 32 Katahdins were blue ribbon winners everywhere they were shown. They took first at the Emmet County potato show in Petoskey; the Northern Michigan potato show, Cadillac; the Michigan potato show, East Lansing, and at the national and international shows in Chicago. Besides winning numerous ribbons and cash prizes, Sluyter's awards include one-half of a college education -- a two-year scholarship at Michigan State College..."

Book on Turkeys

"We have just finished reading a new book titled 'Turkey Management'," says Pacific Rural Press (August 12), "written by Stanley J. Marsden, in charge of poultry research at the Federal Experiment Station at Beltsville, Maryland, and Dr. J. Holmes Martin, director of U. S. Regional Poultry Research Laboratory, formerly in charge of poultry husbandry and genetics at the University of Kentucky. Containing 708 pages with 200 illustrations and charts, this new book is a complete treatise on turkey raising, giving up-to-the-minute information on breeding, feeding, disease control, etc. It also includes full information on sexing turkeys and the technique of artificial insemination."

R.R. Freight Regulations

As a move designed to enable the railroads to hold their present traffic and encourage a return to them of traffic now carried by other means of transportation, the Association of American Railroads has announced amendments of its demurrage and storage rules. The amendments are to become effective October 1. They liberalize the existing rules so as to give shippers and receivers of freight greater leeway in the time allowed for loading or unloading, or claiming less than carload lots at destination. The changes are intended also to encourage the loading of cars more nearly to capacity. (Press.)

Cattle Show Exhibits

Educational exhibits will again be prominent at the Annual Dairy Cattle Congress at Waterloo, Iowa, September 25 to October 1, says a report in the American Produce Review (August 9). "The United States Department of Agriculture, which has exhibited with one or two carload displays for fifteen consecutive years, will lead, with other federal divisions, state departments and agricultural colleges showing the latest developments in the solution of agricultural problems. Ten acres will be used exclusively for farm machinery displays, while exhibits of smaller industrial equipment will occupy 200,000 square feet of space in buildings..."

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Section 1

August 17, 1939

SEED BIDS REJECTED

The Agricultural Adjustment Administration today announced that bids in response to a recent advertisement for the purchase of 5,512,000 pounds of hairy vetch and Austrian winter pea seed have been rejected because the prices bid were considered too high. Except for one bid on a small quantity of seed, bids ranged from \$5.225 to \$5.90 per 100 pounds for peas, delivered at local points in the Southeastern States, and \$10.10 to \$16.00 per 100 pounds for vetch. The rejected bids covered seed which would have been furnished to farmers in the South and Southeast in lieu of payments under the 1939 Agricultural Conservation Program. The purpose of the proposed seed purchase was to increase the use of winter legumes in the Southern and Southeastern States, where land is subject to severe leaching and erosion.

PLAN TOBACCO REFERENDUM

Instructions for a referendum on flue-cured tobacco marketing quotas for the 1940 crop have been approved by Secretary Wallace, the Agricultural Adjustment Administration announced yesterday. While the Secretary has not proclaimed a quota, the size of the 1939 flue-cured tobacco crop apparently will bring supplies to a level requiring proclamation of a quota not later than December 1. The referendum must be held within 30 days after the proclamation. The Secretary is required to proclaim a national quota when the total supply is above the reserve supply level. This level is fixed at 5 percent above the normal supply, which is 275 percent of a normal year's domestic consumption and 165 percent of a normal year's exports. The crop estimate on August 10 placed the 1939 production at 1,028 million pounds, compared with the largest previous production of 865 million pounds in 1930 and the current estimated world consumption of about 750 million pounds annually.

TURKEYS AND CRANBERRIES

There will be plenty of cranberries as well as turkeys for an earlier Thanksgiving Day next November, Agriculture Department experts said yesterday, according to a report in the Washington Post. Growers have reported to the department that turkey production increased this year over the 1938 crop of 26,000,000.

**TVA Gets
Power Co.**

The Federal Government, through its vast public power agency, the Tennessee Valley Authority, entered the electric power and light business on a large scale recently when the TVA, in conjunction with allied cities, towns and cooperatives in the State of Tennessee, took possession of one of the prize operating subsidiaries of the \$1,000,000,000 Commonwealth and Southern Corporation, the Tennessee Electric Power Company, for the agreed price of \$78,000,000. Made possible by recent Congressional legislation, the deal, transferring the Tennessee Electric Power Company from private to public ownership, is the largest of its nature in the history of utilities in this country. It terminates more than six years of controversy between the New Deal and private utilities in the Southeast and by its terms converts the entire State of Tennessee into the No. 1 "public power test tube" of the nation. (Press.)

**Japanese
Beetle Spread**

The Japanese beetle scourge is spreading throughout the United States, despite efforts to control it, and now afflicts parts of seventeen States, Department of Agriculture officials have said, according to a report in the New York Times. While some control methods are partly effective, there is no known method of complete extermination, officials said. The beetles spread each year a distance of ten or twelve miles beyond the area infested in the previous year. Experts regard infestation, as it occurs, as continuous. An area of continuous infestation exists in New Jersey, Eastern Pennsylvania, Northwest Maryland and Delaware, it was said, and it has spread to the metropolitan area of New York and parts of Long Island and Westchester County. The best known agency for control of infestation is a parasite which is brought from Japan. Impregnation of the soil with a preparation of lead arsenic is another preventive. Beetles can be driven from golf courses by this method, but it is not recommended for cultivated lands. There are some sprays which also have been used effectively. Quarantines have been established in all continuously infested areas to prevent transportation of flowers, vegetables and other commodities which might carry the beetles into regions where they are not now found.

**Rubber on
Steel Wheels**

A tire manufacturer announces new equipment which makes it possible to mount dual rubber tire assemblies on steel wheels without the necessity of cutting down old wheels or purchasing new wheels. In the case of skeleton-type wheels, this method requires only removal of the steel lugs and the attachment of a mounting band to the tractor's steel wheels -- then the dual rubber tire assembly is bolted to the wheel. With channel type steel wheels, removal of the steel lugs is all that is necessary. It is claimed that this new method materially reduces the cost of the "change-overs" from steel to rubber on tractors. (The Dakota Farmer, August 12.)

Agricultural Cooperatives "There is a definite limit to what the Farm Credit Administration or any other outside agency can do to bring about the development of sound agricultural cooperatives," says F. F. Hill, Governor, Farm Credit Administration, in the August issue of News for Farmer Cooperatives. "They must in the last analysis do the greater part of the job themselves. When we speak of a strong cooperative we mean oneⁱⁿ which: (1) The majority of members continue actively behind the organization; (2) the members are willing to accept responsibility, including their share of the financial responsibility, for the success of the organization as well as to accept the benefits which it has to offer; (3) there is a strong, resourceful, and self-reliant management capable of doing a good job whether in the marketing of farm products, the purchasing of farm supplies, or the furnishing of farm business services....The Research and Service Division of the Farm Credit Administration can assist cooperatives by constantly keeping in touch with their operations and by pointing out those policies and practices which have worked and those which have not worked. The Farm Credit Administration can point out what we believe to be weaknesses and suggest moves which we believe will strengthen the organization. By making credit available on terms suited to the needs of the business and at reasonable interest rates, the Farm Credit Administration can assist in placing the cooperative's financing on a sound basis and in reducing its costs. However, the banks for cooperatives are lending institutions expected to make loans on a sound basis. This means among other things that the membership of the cooperative must provide sufficient capital to give them a reasonable equity in the organization as a basis on which to make a loan..."

Reseeding of Ranges The agricultural editor of the Idaho Extension Service, O. A. Fitzgerald, is author of a short article on reseeding ranges in the National Livestock Producer (August). "The state of Idaho," he says, "boasts of several hundred range plantings, varying from a few acres to several thousands of acres in size. In Oneida County, is a re-seeding of about 4,000 acres of crested wheat grass drilled in rows with grain drills. This re-seeding covered several years. In the Boise National Forest is another large planting -- 1,000 acres -- much of it on fairly steep slopes, drilled in during the fall of 1938. Near Pocatello, last fall, Carl Rudeen, a large sheep operator, reseeded 8,000 acres of his range land with crested wheat....Practically all of the Idaho plantings were made by drill or by hand. The biggest of all, however -- Rudeen's 8,000 acres -- was made from the air. Mr. Rudeen's sky-planted range is being closely watched this year, both by fellow stockmen and by the research men at the Intermountain Station. The important question is what kind of a stand of grass will be secured without special provision for covering the seed. 'Two years ago,' relates sheepman Rudeen, 'I seeded about 2,000 pounds of crested wheat grass from horseback but only covered

600 acres at a labor cost of \$80.00. This year we scattered 2,180 pounds over 8,000 acres by airplane at a labor cost of \$63.00. My thought is that by starting a growth of grass over a large area, it would gradually re-seed itself and, I believe, this type of seeding should be done in August and September while the sheep are grazing. Their hoofs, the fall winds and the moving leaves, will help to cover the seed!..."

Tobacco Curing "Application of the principles of air conditioning to curing tobacco in a new research laboratory at the Kentucky Experiment Station may develop curing information which will enable burley planters materially to increase the proportion of high-selling grades in their crops," says C. A. Lewis, Agricultural Editor, University of Kentucky, in Country Gentleman (September). "...Nine curing chambers, designed by Prof. L. S. O'Bannon, air-conditioning expert, have been constructed at the Kentucky station to give complete control of heat, humidity, circulation of air and other factors involved in curing tobacco...Information obtained so far, while in no way conclusive, indicates that humidity rather than temperature may be the most important factor in developing the bright leaf that brings the top price...Best results have been obtained where the humidity ranged from 65 to 70 percent. Expert graders were unable to distinguish consistently between tobacco cured at 65 degrees and at 90 degrees...In a large majority of the tests, expert graders from the Lexington loose-leaf markets preferred tobacco cured at a constant humidity of 68 percent to that cured at a humidity of 77 percent for two weeks, after which the humidity was reduced to ... 68 percent. Every grader discriminated against tobacco cured at a relative humidity of 77 percent or higher throughout the curing period..."

TVA Electric Appliances Approximately \$3,687,000 worth of residential electrical appliances were purchased by domestic consumers of the power produced by the Tennessee Valley Authority during the twelve months ended June 30, 1939, according to reports by the TVA. This total compared with \$1,612,000 worth of such appliances sold during the preceding twelve months' period. It was estimated that sale of these appliances increased consumption of TVA power by more than 17,600,000 kilowatt-hours. (Press.)

Crossbred Hog Study "The Iowa Experiment Station in a ten-year study of crossbreeding swine has confirmed the results previously reported by Minnesota," says C. D. Lowe, Extension Animal Husbandman, Department of Agriculture. "The experiment which involved 1015 pigs from 105 litters showed that crossbreds were larger and more vigorous at birth than purebreds, and made better gains. The crossbred pigs outweighed the purebreds from three to four pounds a head at weaning, and the litters were larger. Furthermore, the crossbreds outgained the purebreds in the feedlot by about one tenth of a pound per day and reached a weight of 225 pounds on from 25 to 30 pounds less feed than was required by the purebreds." (Country Gentleman, September.)

DAILY DIGEST

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Section 1

August 18, 1939

COTTON LOANS AND STOCKS

The Secretary of Agriculture announced yesterday that the Commodity Credit Corporation has extended the maturity of its loans on 1938 crop cotton one year to July 31, 1940; that it has taken title to the remainder of the 1934 crop cotton under government loans; and that, in order to acquire the necessary additional cotton for delivery under the cotton-rubber exchange agreement with Great Britain, it will take title on September 1, 1939, to the 1937 crop cotton which is under government loan.

SEARS ROEBUCK RECORD SALES

Sears, Roebuck & Company yesterday reported gross sales for the seventh period of its fiscal year, July 17 to August 13, totaled \$39,894,986, an increase of \$6,748,535, or 20.4 percent, compared with sales of \$33,146,451 in the 1938 like period. The sales were the best seventh period sales in the history of the company. (A.F.).

TOMATO PRODUCTION

The Agriculture Department's crop reporting board estimates this year's production of tomatoes for commercial manufacture will total 1,645,700 tons. This compares with 1,737,700 last year, and a 10-year average of 1,458,600 tons. The tomato crop generally has escaped serious injury from the widespread hot, dry weather which prevailed up until August 1 over much of the country, it is reported. (A.F.)

TRADE PACT NEGOTIATIONS

The United States will negotiate new trade agreements with six countries to replace expiring treaties signed during the first two years of the reciprocal trade program. State Department officials have announced hearings would begin October 2 on a proposed new agreement with Belgium. Others will be with France, Switzerland, the Netherlands, Denmark and Finland. Trade between Belgium and the United States totaled \$128,500,000 in 1938. It has risen steadily since 1934, before the first agreement was signed, when it totaled \$73,000,000. (A.F.).

1940 WHEAT PAYMENTS

The AAA announced today that conservation and price adjustment wheat payments which farmers may earn in 1940 for complying with the AAA program will be between 18 and 22 cents a bushel. The 1940 payment will be lower than the 28 cents in 1939, because the 1940 allotment is 62,000,000 acres, compared to 55,000,000 in 1939.

Lumber Consumption Due to increased activity in the construction of small homes, lumber consumption in the United States during 1939 will be from 10 to 15 percent greater than it was in 1938, the Department of Commerce predicted recently. In making public the quarterly report of the Lumber Survey Committee, the department stated that the lumber manufacturing industry completed the first half of 1939 with moderate stocks on hand and a substantial volume of unfilled orders. "Lumber consumption of the country for the first half of 1939 amounted to about 11,700,000,000 feet, an increase of 19 percent above the consumption in the first half of 1938 and 13 percent less than the consumption in the first half of 1937," the committee reported. "Lumber stocks on hand July 1, 1939, were estimated at about 8,000,000,000 feet, an industry decline in the first half of the year of about 5 percent..." (Press.)

Northeast Soil Aid A fall campaign to increase the use of lime and superphosphate on pastures and land being prepared for spring seedings of legumes in Northeast States has been announced by the Northeast Division of the Agricultural Adjustment Administration. This will help meet problems arising from the drought. The AAA will continue the policy of offering lime and superphosphate to New England farmers as an alternative for cash payments earned under the Agricultural Conservation Program. New York farmers participating in the AAA will be offered lime in lieu of conservation payments for the first time, and distribution of lime and superphosphate for pasture improvement only will be continued in Pennsylvania, according to Charles D. Lewis, Assistant Director of the AAA Northeast Division. Reports from farmers show a large increase in use of the two materials since 1934. All farms in the Northeast region purchased only 361,271 tons of lime in 1934 while AAA participants alone used 1,205,997 tons in 1938.

4-H Club Fellowships Two National 4-H Club fellowships of \$1,000 each for 9 months study at the Department in Washington have been made to Lillian Ann Murphy, Bremen, Indiana, and Wilmer W. Bassett, Jr., Monticello, Florida, Doctor Warburton, Director of Extension Work, has announced. These fellowships, which have been awarded annually for the last 8 years to outstanding 4-H Club members by the Payne Fund of New York City, are sponsored this year by the National Committee on Boys' and Girls' Club Work of Chicago. Both the young people were active members of 4-H Clubs during the time they were eligible for membership and won many honors and awards. They are now county extension agents, Miss Murphy, home demonstration agent in Vigo County, Indiana, and Mr. Bassett, assistant agricultural agent in Lake County, Florida.

Poultry
Congress

An article in the *Prairie Farmer* (August 12) by Don Turnbull, commenting on the success of the World's Poultry Congress, says: "More than 5,000 birds competed in the live poultry show, thus making it the largest competitive event of its kind anywhere. Better than 3,000 birds were displayed in the Pageant of Poultry, thereby hanging up another record for the largest exhibition of this type. Approximately 35,000 persons passed through the turnstiles on the opening day to look at all this poultry and the 500 or more other exhibits, commercial and non-commercial. That was another record for poultry congress attendance. Total attendance was well over 750,000 persons -- and that is another record. Poultrymen from 48 states, practically all the United States possessions, and from 44 foreign countries registered. Approximately 500 persons came from foreign soils..."

New Dairy
By-Product

In the constant search for new ways to use waste dairy by-products, scientists of the Bureau of Dairy Industry have devised a new food article from two surplus products -- skimmilk and cull potatoes. The potato and skim-milk mixture, with a little salt added, is made into wafers, chips, sticks or croutons, and even dried to crispness. These products contain no cooking fat and consequently keep indefinitely without becoming rancid. Food specialists and others have found the wafers, chips and sticks desirable for use with soups, and for serving with light luncheons, in much the same way crackers and potato chips are used. (The American Produce Review, August 16.)

U. S. Leader
in Chemistry

Leadership in chemistry throughout the world is now in possession of the United States, it is disclosed in a report submitted to the American Chemical Society by Prof. E. J. Crane of Ohio State University, editor of Chemical Abstracts. Germany, which ranked first during the World War period and even a decade ago, has now dropped to third place with Great Britain second. Russia and Japan show striking gains, Prof. Crane reports. English is predominantly the language of science, the United States and England accounting for 40 percent of all scientific periodicals published. The report is based on an analysis of 65,000 abstracts of chemical discoveries reported last year in Chemical Abstracts, Prof. Crane explained. Chemical patents account for much of the leadership of the United States. During the last five years U. S. chemical patents have increased 15 percent in number over the preceding five years. (Science News Letter, August 19.)

Wax Coatings for Fruits

In "Wax Emulsion for Deciduous Fruits," in American Fruit Grower, Robert M. Snock, Cornell University, reports that water emulsions of various waxes are used. "One need not hesitate to eat fruit coated with waxes," he says, "any more than he need to fear eating honey in the comb, the waxes being digestible and unharful....Possibly the most widespread usage of wax emulsions with deciduous fruits will come in the prevention of shriveling. Most fruits contain 80 to 85 percent water and this is gradually lost as water vapor through the skin of the fruit. Mother Nature endowed many fruits with a natural coating of wax which more or less inhibits the passage of water vapor out of the fruit. Certain varieties of apples like Golden Delicious and Grimes Golden were not very richly endowed with this waxy coating and are very subject to shriveling in storage. Work at Cornell, the University of Maryland and other institutions indicates real possibilities of reducing shriveling in varieties of this type. Judicious waxing will cut in half the water loss from Golden Delicious without impairing its flavor in any way. Of course, one way to eliminate this storage shriveling is to use high storage humidities, (i.e. 90 to 95 percent) but this often results in excessive mold growths. Another advantage the waxing has over high storage humidities is the fact that it persists on through the marketing period when fruits may be subjected to high temperatures and very low relative humidities...."

Schulte Retires

John I. Schulte, senior experiment station administrator in the Office of Experiment Stations, is retiring after more than 42 years' continuous service. Mr. Schulte came to Washington in 1897 as assistant editor in field crops on the Experiment Station Record. He has since served in many capacities, including the installation of Department exhibits at several world's expositions in this country and abroad. In 1900 he was a member of the international jury of awards at the Paris Exposition and received the designation from the French Government of Chevalier du Merite Agricole.

Retail Business

The Commerce Department has announced that retail business was about \$1,000,000,000 better in the first half of 1939 than it was the first six months of 1938, despite a fall in prices. Prices of general merchandise were about 2.5 percent under a year ago, while retail food costs were off about 3.5 percent. Thus, unit sales increased even more than the dollar volume. Retail trade for the first six months of this year totaled about \$17,900,000,000, a gain of 6 percent over the first six months last year. (A.P.)

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Section 1

August 21, 1939

SALES OF FARM EQUIPMENT Close observers of conditions in the farm implement industry now believe that sales for the year will probable run about 10 percent under the 1938 dollar totals, according to a Chicago report to the New York Times. This contrasts with earlier expectations that the last half would be sufficiently ahead to bring a small increase for the full twelve months of 1939. Low prices for grains and a ~~une~~skish distribution of crop yields are blamed for the disappointing showing.

RAIN AIDS N.E. CROPS Rainfall has soaked parched farmlands from Virginia to New England, given new life to burned pastures, removed the threat of forest fires and assured an adequate water supply, says a report in the New York Times. From the farmlands of New Jersey, Long Island and upper New York optimistic reports told of new hope for crops and pastures that had been damaged by drought and sun. Strong winds accompanying the rain caused some injury to crops but this was far outweighed by the benefits of the storm.

FOOD STAMP PROGRAM Federal farm officials, setting up nation-wide machinery to expand the food stamp plan, have expressed concern that funds may not be sufficient to meet applications from scores of cities eager to try the relief scheme, says a report in the Washington Post. Secretary Wallace estimated he had "between \$50,000,000 and \$60,000,000" to use on the experiment this year. Grocers, who formerly protested the free distribution of competitive products, have been enthusiastic supporters of the stamp plan because it gives them additional sales.

CALIFORNIA FOREST FIRES Hard-driven crews of fire fighters appeared to be gaining control yesterday on some fronts of the many fires sweeping through forests and brush lands from Central California to British Columbia, says a San Francisco report by the Associated Press. Standing and cut timber losses mounted so rapidly that there was no estimate of the total. Oregon and Washington forest officials said that logging operations might be ordered stopped.

Dairy Report The Bureau of Agricultural Economics looks for continued heavy production of milk this summer and fall. Prices are low, and pastures are in poor condition, but feed grains and feeds are plentiful and relatively low priced. Consumption of fluid milk and cream has increased in recent months. Consumption of manufactured dairy products this summer has been the highest on record, reflecting largely the distribution of butter by Government relief agencies. The relationship between prices of butterfat and feed grains favors dairy production, the Bureau says. Prices of manufactured dairy products have been stable at a low level, but prices of feed grains and feeds have declined. Total milk production on August 1 was the second highest on record for that date.

Robbins Named Credit Head Secretary Wallace has announced that Carl B. Robbins has been appointed President of Commodity Credit Corporation, effective August 15. Under the President's Reorganization Plan I the Commodity Credit Corporation was transferred to the Department. The Corporation makes loans to producers on commodities stored as collateral. Mr. Robbins' experience has included service as economic adviser for a branch banking institution and as First Vice President and Treasurer of a manufacturing corporation.

Cotton Loans Extended The Secretary has announced that the Commodity Credit Corporation has extended the maturity of its loans on 1938 crop cotton one year to July 31, 1940; that it has taken title to the remainder of the 1934 crop cotton under government loans; and that, in order to acquire additional cotton for delivery under the cotton-rubber exchange with Great Britain, it will take title on September 1, 1939, to the 1937 crop cotton which is under government loans.

Underground Irrigation "Experience of the Kelseys, Kaw Valley, potato growers, with irrigation from the underflow demonstrates the soundness of this form of farming," says an editorial in Topeka Capital (August 6). "Their irrigated acres produced an average of 200 bushels, while the unirrigated portion of their crop made no more than 150 bushels per acre. On the basis of the Chicago market, the difference is somewhere near \$50 per acre...The everlasting water supply is but a few feet below the surface. Wells are relatively inexpensive, when the returns are considered. Recurrent dry spells in Kansas have given irrigation a big boost. Where the underground water strata is close to the surface, it is being tapped to provide moisture...The Kaw Valley spud raisers may have to resort to universal irrigation in self-defense. It has been proved over and over again that irrigation pays large dividends on the cost. During the July drouth many Valley corn fields dried out, when the roots were not more than twenty to thirty feet from an inexhaustible supply of water. These fields could have been saved with irrigation at the right time..."

**FSA Clinic
on Wheels**

Newsweek (August 21) contains three pictures of a Farm Security Administration "clinic on wheels." "To combat the threat of disease in the wake of California's migratory farm workers (60,000 families at the latest estimate)," it says, "authorities have equipped trailers and station wagons to cruise from camp to camp. These pictures show the layout and activities of an Imperial Valley trailer clinic set up by the Agricultural Workers Health and Medical Association -- backed by state, Federal (FSA), and medical groups -- to make examinations, treat injuries and ailments, and carry on immunization. Organized in May 1938, the A.W.H.M.A. treated 31,728 persons in California and Arizona in its first year."

**Code Weather
Reports**

Four times daily the teletype printers and telegraph clickers at the Weather Bureau in Washington start sputtering such messages as this: 55318 28200 32940 28 /// 00195 65711 3650 LIGHT. Packed into that brief message, that comes through at the lowest rate because it has less than ten units, is the complete picture of the weather and meteorological conditions at weather station 553 which is Omaha, Nebr. The message is a sample of the Weather Bureau's new numerical code which has just been put into effect after fifty years of using over 10,000 code words to describe weather in telegraphic communication. By the numbers code it is possible to report 99 different kinds of weather, 16 wind directions, more than 50 types of precipitation, about 30 kinds of clouds, about 10 degrees of wind velocity and visibility and other information. By actual count it took 130 words to describe what the telegram, in code, packed into eight words. (Science News Letter, August 19.)

**Report on
Vitamins**

The Journal of the American Medical Association (August 12) says: "In this issue appears a report by the Cooperative Committee on Vitamins of the Council on Pharmacy and Chemistry and the Council on Foods. The report is divided into two parts, one concerning vitamins as drugs and one dealing with vitamins as foods. The Council on Pharmacy and Chemistry again summarizes permissible claims for the use of vitamins in the prevention and treatment of disease and...recognizes the desirability of reducing the number of types of vitamin A and D preparations in different classes of manufactured products...The problems of the Council on Foods are complicated by the current tendency toward fortification of foods with excess of vitamins; some of this fortification is based on common sense but often there is no apparent basis except the desire to develop a product that can be sold. In general the Council on Foods feels that reconstruction of foods by the addition of vitamins lost in manufacturing processes is justified, but mere fortification for the sake of fortification the council cannot commend..."

Grassland
Research

Ecology (July) contains a review of a report on the ecology of grasslands, made for the National Research Council by the Ecological Society of America. "In spite of the disasters that recent years have shown to agriculture and industry in the Plains States," it says in part, "only five institutions hold any grassland for scientific research and instruction. The institutions in the blacksoil prairie area at the eastern edge do not have any. There is serious need for continuous observation of grassland, for the restoration of perennial grasses to hold the soil against wind erosion, and for restoration of grasses on plowed lands. To make the best use of grassland much knowledge must be acquired bearing on the relations of grasses to soil, rodents, grasshoppers, etc. Grassland also has advantages for general biological study due to the general visibility and convenient arrangement of its vegetation features. Still the greatest centers of grassland study, such as the Universities of Arizona, Texas, Oklahoma, Kansas, Nebraska, Iowa, Illinois and Saskatchewan and likewise the agricultural colleges of the same states and provinces, are without lands for research and instruction. Of the five institutions owning grassland only one (Colorado Agricultural College) grants the Ph. D. degree..."

Hurricane
Warnings

The Weather Bureau's hurricane service is able to give ample warning of hurricanes, Commander F. W. Reichelderfer, chief of the bureau, said recently. During the hurricane season, which generally is from July to October, the Weather Bureau is frequently asked to tell how it charts these storms. When there are indications of a tropical cyclone or hurricane, special observations are made at two to three hour intervals by ships and stations in the region, and these are sent to the main hurricane forecasting centers, Washington, Jacksonville, New Orleans and San Juan. The effectiveness of this system, Commander Reichelderfer said, was demonstrated recently when a small hurricane crossed the Florida Peninsula. This was first charted when it was 175 miles northeast of San Juan. Information was issued every six hours until the storm reached the Florida coast. Then advices were increased to hourly broadcasts until the storm passed into the Gulf of Mexico. "These advices serve as examples of the remarkable accuracy with which the movement and intensity of violent storms can be foretold by means of the hurricane warning system," Commander Reichelderfer said. (New York Times.)

Historic
Plow

The Smithsonian Institution has acquired the first steel plow forged by John Deere at Grand Detour, Ill., in 1837. Made of an old sawmill saw because other suitable steel was lacking, it was able to shear through the tough roots of the prairie grasses that balked the relatively feeble eastern-type plows which the pioneers had brought with them. The historic implement will be added to the collection of early American plows already in the Smithsonian Institution, some of which date back as far as 1797. (Science Service.)

DAILY DIGEST

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Section 1

August 22, 1939

WHEAT CROP INSURANCE

The Federal Crop Insurance Corporation reported yesterday it had distributed 2,670,236 bushels of wheat to reimburse more than 11,000 growers for damage to this year's wheat crop. The value of the indemnities, covering disbursements up to August 12, was \$1,424,616. Leroy K. Smith, manager of the corporation, said settlement of losses was nearly completed in the winter wheat belt and in the spring wheat belt was well under way. The corporation wrote more than 170,000 "all-risk" policies insuring growers up to either 50 or 75 percent of their average yield. Growers paid premiums representing 7,243,000 bushels. Nebraska leads in the largest number of indemnities, where 2,614 growers have received payments representing 433,101 bushels. Texas growers received the highest total of indemnities, the equivalent of 844,989 bushels having been paid to 2,029 producers. (A.P.).

NORTHWEST FOREST FIRES

British Columbia and Washington forests were closed yesterday as Pacific Northwest firefighters continued a desperate battle against multiple blazes that taxed available man power, says a Seattle report by the Associated Press. The British Columbia order closed the forests to everyone--loggers, miners, trappers and vacationists--but in Washington the order affected only logging in the western part of the state. These measures were taken as California controlled its dangerous blazes and Oregon, the heaviest loser of the four commonwealths so far, found new hope in rising humidity. Idaho fires no longer threaten inhabited communities, although at least one still burned out of control.

BRITISH TRADE FACT

The marked increase of British exports of textile piece goods to the United States so far this year is interpreted in Great Britain as a direct result of the Anglo-American trade agreement, says a London letter to the New York Times, though the rise of such exports was due in part to the postponement of orders during the negotiations at Washington. An analysis of the Anglo-American trade figures for the first half, respectively, of 1938 and 1939, shows a relative as well as an absolute rise in the value of British exports to America, in proportion to total British exports, though the proportion was lower than in the first half of 1937. On the other hand, Great Britain took a smaller proportion of total American exports during the first half of this year than in the same period of 1938.

Poultry Diseases Veterinary Medicine (September) contains an address on "Continuation Schools for Veterinarians in Poultry Diseases" by E. S. Weisner, Michigan State College. A note says: "Many plans have been attempted in a score of years to bring to the poultry industry the same type of skilled veterinary service available to other branches of animal husbandry. But on the whole veterinarians have remained indifferent to the poultry field and poultry raisers have been stubbornly reluctant to forego the rosy promises of remedy salesmen. Meanwhile the loss from disease in the poultry industry has quadrupled and the percentage of failures has led every other branch of animal production. Doctor Weisner, following rather closely a plan tried with but moderate success in Illinois, appears to be at one and the same time interesting the veterinarians of his state in poultry practice and in some measure convincing Michigan poultry raisers of their need for the benefits of scientific medicine."

Chemistry and Engineering "Promising future opportunities for agricultural engineering in the newly organized Bureau of Agricultural Chemistry and Engineering in the U. S. Department of Agriculture, was the keynote of the A.S.A.E. annual meeting address by Dr. Henry G. Knight, published elsewhere in this issue," says an editorial in Agricultural Engineering (August). "...He sees agriculture as an organic chemical industry subject to improvement in the variety, quality, and applications of the chemicals produced; and in the equipment, methods, controls, and organization for producing, handling, storing, processing, and using these chemicals. He acknowledges freely the engineering involved in the application of chemistry on farms and in processing farm products. There will be opportunity for and insistence upon effective teamwork between chemists, agricultural engineers, and other specialists in working on farm problems which overrun man-made technical boundaries...Agricultural engineers might act as agents of agriculture, seeking new and better outlets for farm products, and ways of improving farm products and decreasing their cost as industrial raw materials, Dr. Knight suggests. Industrial demand for raw materials is far from static. If farmers are to count on this market they must be prepared to meet competition and changing requirements. The mining, lumbering, petroleum, and fishing industries are strong competitors for important parts of the industrial raw materials market. Changes in processing may require either higher or lower quality of raw material, and changes in time, quantity, cost, and form or condition of delivery. Changes in demand for the finished products will alter requirements for raw materials..."

Market

Hog Type

The North American Veterinarian (September) reports that recently "breeders, packers, and swine husbandmen from the agricultural colleges in the corn-hog states got together for a 'Type Conference,' the first of its kind ever to be held. E. M. Harsch, secretary of the Hampshire Swine Record Association, is credited with the idea of getting together representatives of the several agencies identified with the production and marketing of hogs for the purpose of bringing about 'the deflation of the fallacy that there is any real and unsurmountable difference between what the market will take to best advantage and what the producer can give without sacrifice to production efficiency and profit, and that the packers are definitely not asking for the short, shoved-together, roly-poly, pony type that is so widely pointed out as the kind the packers want.'...Indicative of the desire upon the part of swine producers to supply the market with what is wanted, to the mutual advantage of both producer and consumer, is the announcement that a group of swine growers in central Indiana are planning to produce 'certified hogs.' These are to be bred, fed and finished according to certain specifications, will be marketed at weights between 180 and 240 pounds, and are expected to command premiums of 15 to 35 cents per hundredweight over the average market run of hogs. The first 'certified hogs' are expected to go to market this month."

Crop Residues

Aid Moisture

In the August issue of the Journal of the American Society of Agronomy is a paper on "The Use of Crop Residues for Soil and Moisture Conservation," by F. L. Duley and J. C. Russell, reporting joint work by the Soil Conservation Service and the Nebraska Experiment Station. Although the results are not yet conclusive, they report: "Leaving crop residues on the surface of the ground appears to be a very effective and practical method of conserving soil and soil moisture in the Great Plains. Used in this way they may be expected to have the following beneficial effects: (a) Greatly increase infiltration and thereby reduce the amount of runoff; (b) reduce evaporation from the surface soil; (c) reduce the amount of water erosion; and (d) reduce the amount of wind erosion. It is also recognized that this organic debris left on the surface of the soil for an extended period may have many other physical, chemical, and viological effects, some of which may be favorable and some unfavorable to crop production. The decayed part of the residue as well as a certain amount of undecomposed material would, of course, be gradually worked into the soil by whatever cultivation practice that may be used. This decayed organic matter incorporated with the soil may aid in the maintenance of fertility, but in these tests it had little effect on the storage of soil moisture. These tests, along with much practical experience by farmers, would seem to emphasize the importance of continuous protection of land in the Great Plains, either by a growing crop or by the use of crop residues on the surface until another crop can be started. The results indicate that for storing and

conserving moisture in the soil, protecting the land with plant residues when available in sufficient quantity may be a much more efficient method than is the use of clean or 'black' fallow now so generally used throughout the regions of low rainfall...."

REA Electric Devices

The Rural Electrification Administration has announced it has developed, in cooperation with several electrical equipment manufacturers, new devices and techniques by which low-income farmers may have electric service at very low cost. The new devices consist of a small transformer, a new gap for lightning protection, a new type of circuit breaker, and an underground wire from the transformer to the house which serves both as a conductor and as a ground for the circuit. These pieces of equipment are being marketed at very low prices, bringing the cost of electricity down where a minimum bill of about \$1 a month will provide revenue enough for amortization of the cost. According to R. B. Craig, Acting Administrator of the REA, this new service will permit a tenant farmer or share-cropper to have electric light and radio, and possibly other small appliances. "The minimum bill for each user on an REA-financed power line," Mr. Craig pointed out, "averages about \$2.50 in the South, and \$3.50 to \$4.00 in the North. These bills are beyond the means of many tenant farmers, who have been unable to take electric service although the power lines pass their doors. The new equipment will make it possible for farm families to enjoy some benefits of electricity at very low cost. It is not possible to use the new service drops for farms where many appliances are installed or where any power equipment is used. They will permit the simultaneous use of a standard electric iron, a radio, and 2 or 3 light bulbs. If the farmer finds later that he can afford to install more electrical equipment, the service can be replaced by one of greater capacity and the standard rate schedules applied. One feature of these new services is that the farmer, himself, can dig the trench from the transformer pole to his house in which the service cable is laid. This work effects a major saving in installation. The entire cost is about \$35.00. The lowest cost previously available was \$75 to \$100. The cable is so inexpensive that if the farmer desires a larger service, it will be cheaper to leave the cable in the ground than to salvage it. This new equipment is the result of more than two years of research by REA engineers. The equipment has been tested thoroughly, and promises exceptionally low maintenance cost, and some features appear to be definite advances over equipment sold at many times the price."

Articles

The August 19 issue of Business Week contains the following articles: Food Stamp Plan Makes Hit; Cotton Carryover Puzzles U.S.; Farm Co-ops' Buying; and Texas Smooth Paper. The last article describes the manufacture of fine coated stock from common pine.

DAILY DIGEST

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FSCC SCHOOL LUNCH PLAN Plans calling for the enlarging of its free school lunch program to include 5,000,000 undernourished children and provide a larger outlet for surplus farm products were announced yesterday by the Surplus Commodities Corporation. The agency said it hoped to reach the 5,000,000 goal by the close of the coming school year. Each month during the last school year 800,000 children in more than 14,000 schools in low-income areas received free lunches made possible by donations under a SCC program carried out in cooperation with the WPA and local educational and welfare agencies. (New York Times.)

CORN CROP INSURANCE The Agricultural Adjustment Administration announced yesterday that insurance certificates issued by private companies on government corn resealed on the farm would remain in effect and that a deposit for insurance on corn resealed from the 1937 and 1938 crops would not be required. It was also announced that the farmer who stores his corn in the local elevator will not be required to pay insurance charges. Prior to the first loan program the insurance rate on farm-stored corn was \$1.50 per \$100. Most underwriters made a rate of 75 cents on corn held under government loan. Now, because of experience with this class of loan, the underwriters are offering a rate of 40 cents.

CONSERVATION PAYMENTS Total certifications for payment and obligations under the 1938 Agricultural Adjustment Program amounted to \$499,999,278 through June 30, 1939, the Agricultural Adjustment Administration announced yesterday. This total shows distribution by states and regions of payments--disbursed or to be disbursed to cooperators in the 1938 Agricultural Conservation Program together with national and local administrative expense--of \$461,549,278.39. Obligations of approximately \$38,450,000 also were incurred in carrying out other activities under the appropriation for the Agricultural Conservation Program. When final adjustments are made it is anticipated that expenditures will approximate the \$500,000,000 appropriated for these purposes. Payments to farmers under the 1938 program, including payments yet to be disbursed and county association expenses, totaled \$447,130,834.93 as of June 30, 1939.

Civil Service Examination The Civil Service Commission announces the following examination: No. 84; Assembled; Junior Marketing Specialist, \$2,000. Optional Subjects: (1) Dairy products; (2) fruits, vegetables, and miscellaneous products; (3) grain, hay, feed, and seed; (4) livestock; (5) meat grading; (6) poultry and eggs; (7) tobacco; and (8) wool. Agricultural Marketing Service. Applications must be on file not later than the following dates: (a) September 18, if received from States other than those named in (b), (b) September 21, if received from the following States: Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

Forest Values "An impressive report has been published by the United States Forest Service on its activities in Virginia," says an editorial in the Washington Star (8/20). "It reveals to some extent the value to the State of the two national forests in the Old Dominion -- the Jefferson and the George Washington. Much of the land in the two areas, the report discloses, is fire-scarred and in worked-out condition, yet the cut last year provided 45,000 work-days for local people...In addition to affording work for local people, the report noted, one-fourth of the forests' income is returned to the State in lieu of taxes, to be used for roads and schools in the counties in which the forests lie. An additional ten percent of the income is put directly back into road and trail construction in the national forests. The forests are vast in size but only embrace a small percentage of the State's forest land... Many other features of the Forest Service's work are mentioned in the report but those enumerated are sufficient to indicate the worthwhile type of work that it is carrying on in Virginia. The valuable services will be increased, fortunately, as the forest areas are enlarged..."

Tenancy Program "Practical endeavors to correct the depression's trend toward tenancy are typified in newly announced plans of the Farm Security administration, dealing with the loan program for the fiscal year ending next July," says an editorial in the Minneapolis Tribune (August 18). "The money is distributed to the various states in accordance with their farm populations and the extent of tenancy in each state...While the loan program is by no means inordinately large, this year's allocation is bigger than that made for the two preceding fiscal years combined. What began as an experiment has evidently met with considerable success. Tenants, well selected for their fitness, have responded to a plan designed to help them in becoming farm owners. The trend toward tenancy had reached alarming proportions, and a steady rise in the sale of farms to the men active in their operation themselves may be expected to mark the next few years. As painful experiences in the days of boom-time land speculation have demonstrated, the kind of real estate transfer that makes owners of tenants has the best long-time consequences."

Reclaiming the Ranges

"Ranchers of northwestern Nebraska and South Dakota are reclaiming drouth damaged and over-pastured range lands," says an editorial in the Lincoln Journal and Star (July 30). "Not only are they reclaiming land, but they are being paid, in part at least, by the agricultural department for benefiting themselves. The range conservation program is an important activity now being carried on under the agricultural act. It is reported that in the range area of Nebraska and South Dakota more than 8,337 ranchers are co-operating, by building dams for the purpose of flooding meadows and other dams for stock watering, by reseeding ranges and by deferred grazing. They are reviving old springs, putting down new wells and making available new stock watering places...The aid given by the government is not only financial. A great deal of the work is done under direction of experts and with government help...Ranchers are encouraged to carry on, not only by the cash payments but by knowledge that they will gain material benefit..."

Rubber Cleat for Wheels

A new device which is designed to replace steel lugs or cleats on tractor and implement wheels is a molded rubber cleat attached to the wheel. The substitution of rubber cleats for metal is said to result in greater riding comfort, faster and more economical operation and to permit travel on paved roads. The cleats are made of a kind of rubber that is said to rival steel for wearing qualities, and are available for wheels from four to 24 inches in width. (The Oregon Farmer, August.)

Co-op Sells Frozen Foods

The experimental quick freezing plant developed at Cleveland, Tennessee, by the Tennessee Valley Authority and the University of Tennessee has been taken over by farmers and is being operated this season as a cooperative. The new and comparatively inexpensive immersion process of freezing as developed by TVA engineers is being employed. Where last year the packs were in units of 30 and 50 pounds and sold to large consumers, this year the frozen pack is in units of three and five pounds for direct sale to consumers through grocers. Sales are being made in New York and other large Eastern markets. In 1937 and 1938 about 250,000 pounds of strawberries, youngberries and sliced peaches were frozen by the plant at Cleveland. This frozen product was distributed through ordinary market channels in St. Louis, New York, Cincinnati, Cleveland, and Washington to determine consumer acceptance. As a result of high quality a large part of the pack realized a price premium of approximately three cents a pound. Transportation is still a big problem in getting frozen foods to market. Railroads, particularly some transcontinental lines, have made marked improvements during the past few years in providing low temperature transportation. However, costs of rail transportation run rather high. To cities and rural vicinities convenient to large inland waterways, the "floating refrigerator" will no doubt solve the problem, as on its test run last fall economies were recorded. (Food Field Reporter, August 21.)

N. J. Breeding E. J. Perry, New Jersey Extension Service, in
Association Holstein-Friesian World (August 19) reviews New Jersey's
first artificial breeding association. "On May 16," he
says, "ninety members of the association had been members for one year.
All but five or six of these original members have signified their in-
tention of continuing in the unit and have entered a total of 20 percent
more cows than they had artificially bred the past year. More than one-
third have now sold their bulls and are depending entirely on two
veterinarians to get their cows safely bred. Of all of the cows insemi-
nated, approximately 4 percent only had to be sold as non-breeders.
This is not considered a poor ratio. There was a considerable variation
in breeding efficiency between herds. For the cows becoming pregnant
the average number of inseminations required was between 1.7 and 1.8...
The leading proved bull, N.J.E.S. Sir Mutual Ormsby Jewel Alice, has
caused some disappointment because he appears to be lower in fertility
in some herds than was expected...The conception rate in the larger
herds has not been running quite as high as in the smaller ones. In
herds of 18 cows or more, 58.9 percent conceived on first insemination
and in those of 12 cows or less 65.8 percent conceived on first in-
semination..."

X-Ray Tests "Seeing" the flavor of cheese by the use of X-rays
Cheese Flavor is the latest development in application of modern scien-
tific equipment in the cheese industry. For discovering
this application of X-rays, S. L. Tuckey, University of Illinois, re-
cently received the \$1,000 Borden prize and a gold medal awarded annually
to the person under 40 who is adjudged to have done one of the most out-
standing pieces of work in dairy manufacturing. The X-ray pictures
are known as diffraction photographs. They are shadows of masses of
atoms which show the arrangement of the atoms forming proteins in
cheese. Proteins give the flavor to cheese by breaking down into
amino acids. These acids have many flavors ranging from sweet to
bitter and sometimes "lingering" ones. The X-rays identify these
acids as they form during the ripening process. The distance between
the rings determines the nature of the "taste" acid. (National Butter
and Cheese Journal, August.)

Cotton The August issue of American Cotton Grower (Harvest
Articles Edition) contains four articles by Department men: The
Cotton Export Program, by Harry L. Brown, Assistant
Secretary of Agriculture; Potential New Markets for Cotton, by Lawrence
Meyers, Agricultural Adjustment Administration, American Cotton and the
Orient, by Fred. J. Rossiter, Foreign Agricultural Service; and Govern-
ment Classing for One Variety, by W. B. Lanham, Bureau of Agricultural
Economics.

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Section 1

August 24, 1939

WORLD COTTON CONFERENCE

The Agriculture Department announced yesterday that nine cotton producing nations had accepted an invitation to discuss the world's cotton problems at an international conference opening in Washington September 5. The nine were India, Egypt, Brazil, the United Kingdom (on behalf of exporting colonies), France (on behalf of exporting colonies), Russia, Sudan, Peru and Mexico. The Department said the subjects for discussion were: "A presentation of the cotton situation of each country, including governmental policies relating to cotton; a review of the experience with regard to international agreements in the marketing of other agricultural products; a general discussion of the possibilities and practicabilities of international collaboration in the case of cotton; and a general discussion of advisability of calling a more formal conference to discuss such collaboration with representatives of both the cotton exporting and cotton importing countries." (Press.)

N.Y. MILK STRIKE ENDS

Leaders of the New York dairy farmers' union late yesterday accepted a compromise price schedule, ending the union's nine-day strike for higher prices in the tri-state New York metropolitan milkshed, says a Utica report by the United Press. The new price schedule will give farmers \$2.15 per hundred-weight (47 quarts) or an average of 5 cents a quart for all grades of milk until November 1. At that time, new prices become effective under the Federal-State marketing order. The union, which claims a membership of 15,000 producers in 30 up-state New York counties and parts of Pennsylvania and Vermont, originally demanded \$2.25 for milk delivered in August, September and October. They said the increase was necessary to offset drought losses.

WHEAT PRICES INCREASE

War talk in Europe and confirmation of reports that the Canadian Wheat Board had withdrawn all offers of No. 1 to No. 3 Northern Spring Wheat for export sent prices on the wheat markets in North America soaring yesterday, says a Chicago report to the New York Times. Winnipeg advanced the permissible limit of 5 cents a bushel and closed at the top. Gains on the Chicago Board of Trade were $3 \frac{1}{4}$ to $3 \frac{1}{2}$ cents, with futures in new high ground since early in July. The September was up 10 cents a bushel from the recent low.

Planning Committees "The voice of the farmer is being heard in the land, through county planning committees, for the first time since the Secretary directed reorganization of the Department of Agriculture," says Bushrod W. Allin, head of the division of state and local planning, Bureau of Agricultural Economics, in Soil Conservation (August). "One of the primary aims of that reorganization was to provide a channel whereby farmer opinion could influence national agricultural programs and whereby technical opinion could be made available to farmers in wrestling with their local problems. In the months since the Secretary's order was issued, the land grant colleges and the Bureau of Agricultural Economics have been working toward the aims outlined in that order. And now the first fruits of this work are becoming apparent. Farmer-drawn recommendations are beginning to arrive in Washington. Two of these sets of proposals are from Hill County, Texas, and Sonoma County, California, both classed as 'intensive' counties. Such counties are those in which the planning is preliminary to that being done in the counties known as 'unified program' counties. 'Intensive' counties are counties in which the farmers have gone a long way toward outlining a plan whereby they believe the national farm programs in their counties can be advantageously altered, counties where farmers are already tackling some of the other problems that do not call for changes in Federal action programs. 'Unified' counties are those counties where it is expected it will be possible for the action agencies to reflect this farmer opinion in their programs for 1940, and where a major effort at reconciling local, State, and Federal programs will be made next year..."

Wages, Hours in Farming The Wage-Hour Administration has issued a comprehensive summary of the wages and hours law's application to agriculture. The bulletin concluded, that: Persons engaged in the processing of fresh fruits and vegetables are exempt from provisions of the act, but processors of nuts are not. Growers and handlers of tomatoes are exempt, but not canners of tomatoes. The act exempts seasonal work from the hour provision for fourteen weeks a year. It also exempts workers employed in the first processing of farm products. The act leaves it to the administrator, however, to decide whether many specific operations fall under the various general agricultural exemptions. Other conclusions in the bulletin were: That the word "agriculture" as used in the act does not include the science and art of cultivating forests. That employes of a farm operated experimentally in connection with a factory are exempt from the law. The bulletin said that first processing meant the first change in the form of raw materials. As a consequence, it held that the manufacture of leather, baking of bread, manufacture of rope from hemp and the making of cigars although

each is a processing of materials, is not an exempted first processing. Exemptions from hour provisions are granted to workers engaged in "the first processing" of milk, whey, skimmed milk or cream into dairy products, canning or packing perishable or seasonal fresh fruits or vegetables or in handling, slaughtering or dressing poultry or live-stock. Listed as not exempt from the law were these canning operations: Making and canning vinegar, canning of baked beans, chili and tamales; repacking and recanning fruits and vegetables, producing wine from grape juice, storing of fruits and vegetables in a storage house. (A.P.)

School of Agriculture In Hoard's Dairyman (August 25) J. O. Christianson, Superintendent of the School of Agriculture, St. Paul, Minnesota, describes the school, which was established in 1888. "During the 50 years that the School of Agriculture has served Minnesota and the Northwest," he says, "over 19,000 young men and young women have attended and over 86 percent have gone into agricultural work, returning to their farms and home communities. The School of Agriculture at the University of Minnesota is not to be confused with the College of Agriculture. The school is essentially a vocational training school, open to any farm boy or girl seventeen years of age or over. It serves largely two groups of students: first, those students seventeen years of age and over who have completed the eighth grade but have not completed high school; the second group are high school graduates who intend to farm and who do not intend to go through a regular four-year college course...The school is in session twelve months of the year. Six months are spent at University Farm, attending classes and participating in student activities. The other six months during spring and summer are spent on the home farm, carrying on work there under the direction of the school...The total cost for each term of three months, including board, room, laundry, books, tuition, and entertainment, is approximately \$75...In recent years other universities have been copying the plan of the School of Agriculture. Many universities are establishing what are known as general colleges in their academic department, wherein students may take short general courses without having to meet requirements for a degree..."

Nursing Aid "The need for professional nursing among farm
Under FSA families is a far cry from the families' actual use of
this service," says Dr. R. C. Williams, medical director
of the Farm Security Administration, in Trained Nurse and Hospital
Review (August). "Demand for trained nurses in rural areas will remain
stationary until the income and living conditions of more than a mil-
lion rural families are improved...It is yet impractical to consider
nursing service for those families sharing in the general medical care
program who make \$300 a year or less. An indication of what can be
done in the field of nursing, however, is being demonstrated by the

work of nurses on Farm Security Administration community projects. On these community projects, anywhere from a hundred to two hundred families have settled on contiguous farms...All the families live within a narrow radius and are easily accessible. The nurse has on hand medical supplies and equipment necessary for her work. She has enough families to work with to keep her busy. The project nurse is not handicapped by excessive travel...Nor is the project nurse overburdened with an impossibly large care load, like many public health nurses...A wide variety of medical care plans are used on the projects. In several communities, the homesteaders have organized voluntary beneficial associations or 'health associations'...The principles of pooling of funds and, wherever possible, of free choice of physician, are basic. The annual membership dues for participation are determined by the families' ability to pay and are usually paid in cash. On certain projects, the Farm Security Administration loans money to the homesteaders for medical care, and these loans are later repaid when the crops are sold. At present, twenty nurses are employed on a full-time basis on these projects, with the possibility that the number will be increased. The fact that 600,000 families fall into the underprivileged farm group indicates that we are hardly touching the surface..."

FHS Water Implement & Tractor (August 19) in an item on
System Loans water system loans under the National Housing Act
 (Title I of which was extended to July 1, 1941) says:
"The top loan is now \$2,500 instead of \$10,000. If the loan is to be used for alterations or repairs, the longest term is three years. If, however, the loan is to be used for constructing a new residence or farm building, the term may be as long as 10 years. The maximum finance charge remains \$5 per \$100 for modernization loans. As in the past, modernization loans will be available to responsible prospects with good credit standing who wish to fix up their homes by making repairs or certain 'permanent' improvements. Renters, too, may modernize on this plan if they hold sufficiently long leases."

Wallace on Secretary of Agriculture Wallace presented the
Travel Curbs infrequently given American Highway Association award
 of \$1,000 to the American Association of Motor Vehicle
Administration recently and at the same time criticized travel deterrents in the form of interstate vehicle tolls and road transport restrictions. In a letter read at the administrators' seventh annual convention by Thomas H. MacDonald, Commissioner of Public Roads Administration, Secretary Wallace decried "unwise regulations of traffic at State boundaries" as causing "greater inequalities" than those they were designed to remedy. Mr. Wallace cited the association for its efforts in creating consistent interstate procedures governing highway travel and safety. (New York Times.)

DAILY DIGEST

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Section 1

August 25, 1939

FCIC CHICAGO GRAIN OFFICE The Federal Crop Insurance Corporation yesterday announced establishment of a central grain office in Chicago, and the raising of the former sub-branch at Spokane, Washington, to the status of a branch office serving seven Pacific Coast and Western States. Leroy K. Smith, manager of the corporation, said that the changes completed a revision of the field offices for the 1940 wheat insurance program. The new central office will have general direction of all grain operations of the corporation, involving accumulation and storage of wheat for the insurance reserve, which is built up as growers pay premiums on "all-risk" insurance. William A. Talbot, former manager of the Kansas City branch office of the corporation, and a grain man of more than 30 years experience, has been placed in charge of the office.

TRUCK CROP SITUATION The Agricultural Marketing Service, in its summary of the truck crop situation, says the weather continued to be an important factor as the various crops are maturing. The first week of August was generally characterized by near normal temperatures throughout most of the country. The Weather Bureau said relatively high temperatures prevailed during the second week of August over the far northwestern states, most of the South and from the Ohio Valley northward and eastward. From reports from canners, the A.M.S. indicates that during the first two weeks of August (a) a reduction of 5 percent in the total 1931 production of snap beans for manufacture from the tonnage in prospect August 1 has taken place; (b) the 1939 production prospects of August 1 for sweet corn have been fully maintained; and (c) a slight increase was in prospect on August 15 for tomatoes for manufacture.

N.I.H. MILK RESEARCH With equipment installed in its new laboratories, the National Institute of Health, at Bethesda, Maryland, has begun research on milk sanitation, says the Washington Times Herald. A new, plate-type pasteurizing machine which purifies 750 gallons of milk per hour, and the new paraffin milk containers, are among the items undertaken for study by the institute. When the specifications and performance of the pastuerizer have been determined, the data are published in the Public Health Service "Milk Ordinance and Code."

Combines Increase A. P. Brodell, writing in the Agricultural Situation (August) on the increasing use of the combine, says: "Its limited use in harvesting less than 5 percent of the wheat crop in 1920 has increased until in 1938 it was used in harvesting about 50 percent of the wheat acreage harvested for grain. During the same period the number of combines on farms in the United States increased from about 4,000 to around 100,000...Results of a recent study indicate that the combine was used in each of 41 States circularized. Its use was most pronounced in the West South Central and Pacific Coast States where from 75 to 85 percent of the wheat acreage harvested for grain in 1938 was combined. It is also an important means of harvesting the wheat crop in the West North Central and Mountain States where about 50 percent of the 1938 wheat crop was harvested with the combine. The grain binder is still important in harvesting wheat in some sections of the country, particularly in the Middle Atlantic, the East South Central and South Atlantic States, where more than 75 percent of the 1938 wheat crop was harvested with the binder. Although the combine is used in harvesting oats the grain binder continues to be the most important machine for harvesting this crop...The results of the study apply only to crops harvested in 1938. Climatic conditions, insect infestation, prevalence of disease, yields, and prices received by farmers, all affect to some extent the harvest methods used in the particular year..."

Irradiation Keeps Fish Sea food of the future may be kept from spoiling for longer periods of time through the use of ultra-violet rays, as a result of experiments conducted by the Bureau of Fisheries. In the first attempts at irradiation of fish in the United States, the preliminary tests by the bureau showed that an irradiation of one hour on each side markedly reduced the bacterial count of haddock fillets without significantly affecting the appearance, texture, or dry matter content. Moreover, this comparatively long period of irradiation not only had no adverse effect on the nutritive value of the protein but increased the vitamin D content of the fillets. The experiments revealed that only a two-minute exposure to the ultra-violet rays resulted in the destruction of four out of five cultures of bacteria taken from market fillets. (Press.)

1938 Farmers' Cooperatives The August issue of News for Farmer Cooperatives is devoted to the work of the Cooperative Research and Service Division of the Farm Credit Administration and to the outstanding cooperative developments of the past year. Topics discussed are business administration, wool, livestock, dairy products, fruits and vegetables, poultry and eggs, mutual insurance, cotton, grain and purchasing.

Farm Income Estimate

The Bureau of Agricultural Economics has estimated that farmers' cash income -- including income from farm products marketed, commodities placed under Government loan in 1939, and from Government conservation and parity payments -- will probably total about \$7,900,000,000 this year. This compares with \$8,020,000,000 in 1938 and \$8,983,000,000 in 1937, when farm income was the highest in the last 10 years. The low point in farm income was in 1932 when cash income from farm marketings amounted to only \$4,606,000,000. The value of farm products retained for consumption in farm households in 1939 is expected to total about \$1,200,000,000. This compares with \$1,270,000,000 in 1938 and \$1,437,000,000 in 1937. Gross farm income in 1939 -- including income from marketings, commodities placed under loan, Government payments, and the value of goods consumed on the farm -- is estimated by the Bureau at \$9,100,000,000 compared with \$9,290,000,000 in 1938 and \$10,425,000,000 in 1937.

New Grasses for Plains

Saying that "fifty years ago agricultural researchers were studying grasses, but as plowed land succeeded ranges on the high plains, emphasis shifted to cultivated crops," the Des Moines Register (August 14) comments editorially: "Recently the Department of Agriculture has begun intensive grass research again. One of the chief lines of inquiry at the department's 4,200-acre Southern Great Plains field station near Woodward, Oklahoma, is the search for the best ways of putting a grass cover back on plowed or blown land... Researchers have been experimenting with 521 species of grass, and different ways of planting it. Mixtures of such native grasses as blue grama, galleta grass, plains brome, western wheat grass and others show promise. Contour furrowing on the pastures and contour listing on the plowed land help. Instead of a nurse crop on the plowed land, they have been using close-drilled Sudan grass stubble 8 to 12 inches high, sowing the grass seed in it medium early the following spring. When seed is short or expensive, native hays containing an abundance of ripe seeds can be sowed broadcast on fallowed ground and punched in with a disk..."

Rural Sales Increase

During July the daily average sales of general merchandise in small towns and rural areas were higher in the South than in other sections of the country, the Department of Commerce has reported. Rural sales for the country as a whole were up 7 1/2 percent as compared with July, 1938, but the gain in the South was 11 1/2 percent. (Press.)

Ohio Lamb Cooperative "Topping the nation's lamb market eight times out of nine in one season attests the well directed aim of Clinton County, Ohio, sheepmen in the production and marketing of quality lambs," says Walter L. Black, in the September issue of the Farmer's Digest (reprinted from Ohio Farmer). "Such performance has brought Clinton County more than \$17,000 extra money during the past six years...Last season 5,402 Clinton County 'trade marked' lambs topped all markets in the country including the Eastern Seaboard with the exception of a single market day. This number constituted 83.1 percent of the entire crop marketed through the pool sales at the Cincinnati terminal market by members of the Clinton County Lamb and Fleece Improvement Association in 1938. The entire 1938 lamb crop marketed by the Clinton association averaged \$1.21 more per hundred pounds for all grades than the average price received for all other lambs sold at the Cincinnati market on the same days that season by comparison with government price reports for the market. This voluntary organization now comprises 375 flock owners all using registered rams from Ohio breeders, and they marketed through their own co-operative sales organization more than 24,000 lambs sired by these rams...Lambs are assembled at monthly intervals at the railroad yards. Here they are graded by sheep salesmen and field representatives of the Cincinnati Producers Co-operative Commission Association and shipped by rail for sale on the terminal market the following day..."

Conservation Districts William L. Southworth, Soil Conservation Service, writes in the Farmer's Digest (September) on "Soil Conservation Districts." He reports that "about 350 soil conservation districts have either been formed, or are in the early stages of organization." "Of the districts already in operation," he continues, "some 100 are receiving active assistance from the Soil Conservation Service, the Extension Service, and other public agencies. The Soil Conservation Service has loaned technical personnel to prepare surveys and supervise the application of soil-saving practices. In some cases, it has loaned tractors, terracers, and other heavy equipment, and made available CCC labor under its supervision. County agents and other Extension Service workers have helped districts with educational problems and ironed out organizational difficulties. In a great many districts, large-scale field operations are already under way. District supervisors have entered into co-operative agreements with individuals and are helping them carry out complete soil-conserving programs on a field-by-field and farm-by-farm basis. Agronomists, agricultural engineers, foresters, and other specialists provided by the Soil Conservation Service draw up the farm plans and supervise their execution...The Soil Conservation Service and other public agencies take part only at the specific request of local supervisors..."

The publication also contains a condensation of an article, "Contour Planting and Terracing in Orchards," by John T. Bregger, of the Soil Conservation Service.

DAILY DIGEST

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Section 1

August 28, 1939

BIDS FOR CORN BINS Bids for 13,750 steel grain bins with a storage capacity of 25,000,000 bushels of shelled corn have been called for by the Department. These bins are in addition to the 25,500 bins contracted for on August 10 and the 320 bins contracted for on August 22. The bids now requested will be opened on August 30, but officials indicated that awards might not be made until further information on the amount of corn to be delivered is available. It was announced also that bids on several thousand wood bins probably will be called for in the near future. Delivery of the first steel bins will be made in McLean County, Ill., and Webster County, Ia., on August 30. The resealing program is now underway in all Corn Belt States.

1940 WHEAT ACREAGE The United States wheat acreage seeded for harvest in 1940 is expected by the Bureau of Agricultural Economics to be about the same as for the 1939 crop. The allotment for the 1939 crop was 55 million acres and actual seedings amounted to 64.6 million acres. The world acreage is expected to remain close to present high record levels. Unless the world wheat acreage is adjusted downward or yields per acre are small, very large world supplies will probably continue during the 1940-41 season and any improvement in world prices would depend upon improvement in demand, the bureau says. Wheat prices in the United States are expected to continue above export parity as long as the Government loan and export subsidy programs continue.

R.E.A. LOANS TO FARMERS For each dollar loaned by the Rural Electrification Administration to bring central station service to farm communities, the farmer spends approximately another dollar for wiring and appliances so as to take advantage of the energy brought to his farm, R.E.A. records show. Available electricity creates a demand for radios, irons, washing machines, water pumps, vacuum cleaners, and many other items that bring comfort and entertainment to the farm home and employment to industry.

COTTON CLASSING More than 600 organized groups have applied for free classification of their 1939 cotton crop, the Agricultural Marketing Service has announced. To date, 589 of these applications have been approved. More than twice as many applications have been received than the total of 312 approved during the 1938-39 season.

Starch From In Country Gentleman (September) J. Sidney Cates is
Sweet Potatoes author of "Sweet Potatoes Challenge Corn." Describing
the starch factory at Laurel, Mississippi, he says: "The
plant is now owned and operated by the Sweetpotato Growers, Inc., a co-
operative association of about 1,200 farmers. Owing to the rapid expan-
sion of the enterprise, it was necessary to get further operating loans,
and these were supplied by the Farm Security Administration. Technical
supervision and assistance are still furnished by the Bureau of Agricul-
tural Chemistry and Engineering, but the actual operation of the plant
and the sale of starch are in the hands of the cooperative. The Bureau
of Plant Industry, the old Bureau of Agricultural Engineering and the
Mississippi and Louisiana Experiment Stations have all assisted in the
research. It is an excellent example of cooperation among a number of
tax-supported agencies, all working toward a common objective. Last year
the plant ground 165,000 bushels of potatoes, and produced 1,650,000
pounds of starch. This year it expects to grind 350,000 bushels. And
in 1940--with a dehydrating process installed to permit year-round opera-
tion--it is hoped that a million bushels can be handled. Sweet-potato
starch has not only stood the test in commercial use, but it is now rated
a little better than the imported root starches which we have been using
to the tune of approximately 400,000,000 pounds a year..."

Turkey "A new type of individual has sprung up in certain
Promoters turkey production areas of the West the last two years,
the turkey promoter," says an article in the August Poul-
try Digest (condensed from Norbest News, Northwestern Turkey Growers
Association). "Turkey promoters are in reality financial agents for cer-
tain large eastern commission firms. These firms conceived the idea of
financing the growers on a guarantee basis. Some thousands of turkeys
were raised on this plan in 1938 and many more thousands are being raised
this year. The plan is relatively simple. The grower signs a contract
to market his turkeys through the promoter on a guarantee of 19 cents
for primes, 16 cents for choice and 13 cents for commercials, f.o.b. the
cars. The promoter, acting for the eastern firm, generally deposits about
30 cents per bird with the local bank, which in turn does the active
financing for the grower. For selling the birds, the commission firm
charges the grower 1 1/2 cents per pound. There is no question but this
plan enables scores of people to go into turkeys who otherwise would be
financially unable to get into commercial production. It is a moot mat-
ter whether or not the grower is paying too much for what he receives..."

Midget Mill A new three-in-one feed mill is especially designed
for the small farm. Powered by either a one-plow tractor
or a 5 h.p. electric motor, it will chop 2 to 4 tons of dry hay or straw
in an hour's time, or cut 12 to 22 tons of corn or grass silage and blow
it into a 40-foot silo. The mill can be set up by one man and easily
moved about. (Country Home Magazine, September.)

Civil Service Examination For a limited number of positions in the Executive Office of the President, Bureau of the Budget, Washington, D.C., and for future vacancies which may occur in the Government service, the Civil Service Commission announces open competitive examination: No. 92, unassembled, chief budget examiner, \$6,500, principal budget examiner, \$5,600 (these salaries subject to a deduction of 3 1/2 percent toward a retirement annuity). Applications must be received not later than: (a) September 12, if received from states other than those named in b; (b) September 15, if received from the following states: Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming.

Horse Disease Research The Blood Horse (August 19) reports that the American Thoroughbred Breeders Association is raising a fund for research in diseases of the horse. "The various government and state experiment stations have studied such problems," it says, "...but research with horses is necessarily more expensive than parallel investigations in other fields, and the net result of this fact has been a neglect of difficult problems like periodic ophthalmia and influenza, both of which cause annual losses amounting to millions. In the last few years, however...various experiment stations have turned their attention to problems directly connected with horses. The Michigan station is working on nutrition problems...Illinois has done much work on the nutrition of draft horses. Minnesota is studying the influence of feed upon bone structure...Kansas is trying to find what insects other than mosquitoes carry the virus of encephalomyelitis. Kansas and Virginia are working on insect-repellant mixtures to protect horses on pasture...Pennsylvania and Kentucky are studying moon blindness..."

Ill. Tomatoes Resist Wilt Following 12 years of experiments on developing varieties of tomatoes resistant to fusarium wilt, the Illinois Experiment Station has released four resistant varieties for field use. The first variety is Frairiana. The blossoms set freely and early. The fruits are deep red, oblate and smooth, unusually juicy and acid. In years of moisture shortage it gave large increases in yields over the varieties used as checks. The second variety is Early Baltimore, in the "second early" group. The fruits are deep red, smooth, solid, and meaty with a thick rind. It is a moderate seeder and a satisfactory yielder, especially under drought conditions. Illinois Pride, the third variety, has heavy foliage, blossoms and matures rather late. The fruit is satisfactory for market and canning. Illinois Baltimore, the fourth variety, has bright red color and firm texture. On poor soil it has consistently outyielded the standard varieties. (Oregon Farmer, August 17.)

Sack Stitcher A new friction-drive machine will sew up bags of grain or other produce at the rate of 4 to 7 bags a minute. You fit the top of the bag into a groove and draw the machine, which weighs only 8 pounds, across. (Country Home Magazine, September.)

Fruit Supply and Prices Market prices of most fruits declined sharply during the last half of July and first half of August largely because of a seasonal increase in marketings, according to the Bureau of Agricultural Economics. Fruit crop prospects in general declined slightly during July, but conditions as of August 1 indicated that production of most fruits in 1939 will be considerably larger than the recent 10-year average and that the supply of a number of the major fruits will exceed that of a year earlier. The first estimate of the 1939 apple crop is for a commercial production of 103 million bushels, which is 25 percent larger than the relatively small 1938 crop and 6 percent larger than the recent 10-year average. Larger United States crops this year than last are indicated also for apricots, cherries, peaches and fresh plums and prunes. The pear and grape crops are indicated slightly smaller than last year, but well above average. Citrus crops from the bloom of 1939 developed under rather favorable conditions in California and Florida during July, but dry weather reduced prospects in Texas.

Horse, Mule Situation "At the beginning of this year there were 10,800,000 horses on farms, and 4,382,000 mules," says C. L. Harlan, in the Agricultural Situation (August). "The number of horses was the smallest in nearly 60 years, the number of mules the smallest in 30. The January 1 inventory showed a decrease in the number of horse colts foaled in 1938, but an increase in the number of mule colts. The number of colts being raised indicates that the numbers of horses and mules will continue to decline for several years at least...The number of horses increased almost without interruption from 1865 to 1915, although there was a period of a few years about the end of the last century, reflecting the effects of the depression of the nineties, when numbers declined moderately. The decrease from 1915 has been continuous. The number of mules increased steadily until 1924 and has since declined. The numbers of horses and mules during the last 70 years have not been characterized by short-time cycles of increasing and decreasing numbers such as are shown by numbers of other livestock. During this period numbers have gone through a part of one cycle, being in the upward phase at the beginning and in the downward phase at the present time, the low point of which will not be reached for several years, at least. Two principal reasons may be given for this absence of short-time cyclical movements. One is the relatively long life of horses and mules...The other is that horses and mules largely live out their useful lives since they are work animals and there has never been any considerable slaughter outlet..."

Reforestation More than 200 million young trees a year can now be produced by federal and state nurseries in the northern Great Lakes region, states H. Basil Wales, regional timber management chief in the Forest Service, at Milwaukee. This is enough to reforest 200,000 acres every year. Reforestation operations have already covered 750,000 acres of public lands. (Science Service.)

DAILY DIGEST

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Section 1

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STOCK RAISING IN THE SOUTH

Conditions for profitable livestock raising in the South are changing for the better, partly because of more effective control of animal diseases and parasites, Dr. John R. Mohler, Chief of the Bureau of Animal Industry, said today at the annual convention of the American Veterinary Medical Association. "There are better opportunities than formerly for making a good living from cattle," he said. Science has provided the means for adding favorable forces and reducing the number and effect of unfavorable ones. As other elements beneficial to the South, he mentioned improved types of livestock, better pastures and systems of management, increased use of artificial refrigeration and the establishment of numerous market outlets for meat and dairy products. The prospects, he stated in conclusion, are definitely toward diminishing risks and increasing stability for the livestock industry of the South.

CANADIAN WHEAT CROP

Movement of western Canada's 1939 grain crop to market is swinging into full stride with prospects that deliveries will hit peak figures earlier than usual because the federally guaranteed initial price is much better than the market value, says a Canadian Press report from Winnipeg. Under government order, the Canadian wheat board was paying an initial price of 70 cents a bushel for No. 1 northern, basis Fort William or Vancouver, while the market price for the same grade was 60 3/4 cents. The nation's grain-handling facilities and manpower are handling what is expected to be Canada's largest wheat crop since it produced 443,161,000 bushels in 1932.

SALARY TAXATION

Twenty-eight of the 32 states with laws taxing personal incomes will collect taxes on salaries of several hundred thousand federal employees under the new public safety tax act effective this year, information from the Federation of Tax Administrators showed yesterday. Seventeen states, the federation noted, amended their statutes this year either before or after Congress acted to remove reciprocal immunity of public salaries from income taxation. They were Alabama, Arkansas, California, Colorado, Delaware, Iowa, Kansas, Minnesota, Montana, New Mexico, New York, North Carolina, Oklahoma, South Carolina, Vermont, West Virginia and Wisconsin. (Press.)

Appraisal
of Land

"Modern appraising much more than appraising in the past needs the data that land classification can supply," says Conrad H. Hammar, University of Missouri, in the Journal of Land and Public Utility Economics (August). "With the lengthening of the loan period on farm mortgages from the former customary 5 to 10 years to 30 years or more, appraisals must stand for correspondingly longer periods. Appraisers need, under this new situation, not only the type of information that will enable them to make accurate reports on the characteristics of the land they appraise but also much more information than they have been able to obtain heretofore concerning the effects on land of past and prospective use. That is, appraisers have a great need for two types of information relating to land. First, they need data on land characteristics and, second, they need, particularly under modern circumstances, to know a great deal about the stability of these characteristics..."

Strip Mining
and Farming

Charles L. Stewart, University of Illinois, writes in the Journal of Land and Public Utility Economics (August) on protecting the public interest in land with regard to strip mining. "Public action relative to strip mining may be warranted in certain situations for reasons that do not apply so pointedly to some other types of mineral development," he says. "Where agricultural lands of various classes are suited to strip mining, with possible consequences to agricultural productive capacity of the stripped areas and to agricultural and home values of these areas, as well as of areas adjoining them, public action may have local private and community support. Strip mining involves two natural resources -- the land in its agricultural use and the mineral which underlies it. Here is a problem in the proper balance to be drawn between the long and the short run points of view -- in other words, the balance between present and future incomes. In the solution of this conflict of uses and points of view, the public has a very definite stake, and protection of the public interest requires strategic steps and a comprehensive program for directing strip-mining activities in state and nation..."

Spending
Habits

A report in the Wall Street Journal (August 28) reviews a study covering consumption expenditures in the United States from 1909 through 1937, just completed by the National Industrial Conference Board. Notable in the shifts of consumer spending is the rise in the percentage of per capita income going into transportation, the desire of people to go having lifted this item from 4.1% of total per capita outlay in 1909 to 11.0% in 1937. Offsetting declines have occurred largely in the percentage of per capita expenditures for food and soft drinks which dropped to 24.5% from 29.2% between these years, clothing which dropped to 10.0% from 14.1%, alcoholic beverages which

dropped to 5.1% from 6.8%, and social-cultural activities which dropped to 5.5% from 6.7%. Home maintenance, including house furnishing and equipment, fuel, light, ice, domestic service, rent, and miscellaneous items account for the largest share of total expenditures. Rentals of leased homes and imputed rental values of owner occupied homes are the largest single item in the home maintenance classification. Important changes within this group have included a rise in the nation's telephone bill from under \$100,000,000 before the war to \$722,000,000 in 1937 and a rise in expenditures for electric current and appliances to more than \$2,000,000,000 in 1937 from less than \$150,000,000 before the war (domestic mechanical refrigerator purchases alone amounted to \$400,000,000).

Vocational Agriculture "The charge is sometimes made that the farmer is ultraconservative when it comes to learning or adopting new practices and theories on his farm," says an editorial in Southern Agriculturist (September). "Those who think the farmer is slow to learn should ponder over these facts: Last year enrollment in vocational education schools and classes -- agriculture, trade and industry, home economics, and the distributive occupations -- was 1,810,150 farm people -- an increase over the previous year of more than 313,000. Enrollment in vocational schools and classes has increased steadily and consistently, even during the years of economic recession, over a period of 21 years. One of the important developments in the field of agricultural education is the practice followed by vocational agriculture teachers in a number of states and local communities of co-operating with home economics teachers in setting up programs for the improvement of the farm, the farm home, and the community. Because of the tremendous interest, some states have found it necessary to meet the demands of adult farmers for instruction in evening classes by appointing special teachers to devote full time to adult classes. An effort has been made in the past year to meet the need for instruction of out-of-school farm youths who desire or need training to help them to become established in farming..."

Highway Erosion "Something new is being done about the washing of road beds, shoulders and ditches, the silting of ditches and culverts and the damage to farm lands by water from highway right-of-ways," says G. A. Hale in Arkansas Farmer (August). "State and federal highway departments are cooperating with the U. S. Soil Conservation Service in setting up specially treated sections of highways to work out new methods of treating these and to demonstrate known methods and materials useful in reducing damage of erosion. In addition to cutting maintenance costs, the treatments also beautify highways and improve the safety of driving by removing hazards such as gullied shoulders and deep ditches. The reduction in accidents and the saving of lives should more than justify the expense involved in sloping steep banks, filling deep ditches, widening shoulders and sodding to Bermuda grass the soil surfaces of right-of-ways."

Alfalfa and
Timothy

"Alfalfa has been used successfully in pasture mixtures in many localities, but it has not been commonly used in mixtures for hay purposes," says R. I. Throckmorton, head of the agronomy department, Kansas State College, in Country Gentleman (September). "The Iowa Experiment Station has found that such mixtures are well adapted for hay purposes, especially on the less fertile upland soils. C. P. Wilsie, of the Iowa station, has reported that over a period of three years a mixture of alfalfa and timothy produced from 30 to 35 percent more hay than alfalfa alone. From 25 to 50 percent of the first cutting consisted of timothy, while the second cutting was almost entirely alfalfa. He found that the timothy caused a small reduction in the number of alfalfa plants and reduced the stooling of the plants to some extent. Mr. Wilsie believes that after the alfalfa plants are well established the grass does not tend to reduce the stand, but that when the stand of alfalfa becomes thin the timothy will occupy the spaces that otherwise would be vacant. It has been learned that grass growing with alfalfa develops a darker green color, has a heavier plant growth with more leaves and contains a higher percentage of protein than does grass growing alone. Thus the yielding capacity of the timothy plants and the feeding value of the timothy hay are increased by growing the crop in a mixture with alfalfa. The seedbed and time of seeding requirements for the mixture are the same as for alfalfa grown alone. The Iowa station suggests seeding ten to fifteen pounds per acre of alfalfa and not to exceed five pounds per acre of timothy."

Ohio Erosion
Control

"An outstanding example of State cooperation in a land-use program is to be found in Ohio, where the department of welfare has joined forces with the Soil Conservation Service in conserving the soil resources of 21,000 acres of publicly owned farm land," says Hal Jenkins, Soil Conservation Service, in Soil Conservation (August). "The program now underway is of particular value as a demonstration because Ohio's welfare institutions are so located that they represent practically every important erosion problem area in the State. And practices on State-owned farms are closely observed by private farmers. John D. Bragg, chief agriculturist for the welfare department, and D. T. Herman, State coordinator for the Service, started the ball rolling during 1938...Mr. Bragg takes a long-range view of the problems of State institution farms. 'We realize,' he points out, 'that it is our job to produce as much foodstuff as possible to enable these institutions to be at least partly self-sustaining; but we also recognize that it is equally important for us to conserve and improve our soil resources because the same need will exist 100 years from now.'..."